Approach-Avoidance Goals in Intimate Relationships: A Dyadic Analysis of Different Aspects of Relationship Quality in Couples

Thesis

Presented to the Faculty of Arts and Social Sciences

of the University of Zurich

for the Degree of Doctor of Philosophy

by

Monika Kuster

Accepted in the Autumn Term 2014 on the Recommendation of the Doctoral Committee:

Prof. Dr. Veronika Brandstätter (main advisor),

Prof. Dr. Urte Scholz, and Prof. Dr. Guy Bodenmann

Zurich, 2014

Acknowledgements

This thesis would not have been realised without the support of many important people to whom I am very grateful:

To my academic advisor Veronika Brandstätter. Thank you for the opportunity to work in your lab and to write this thesis, and especially for your support in all steps of my time as a PhD in your department.

To Sabine Backes. Thank you for your mentoring and hours of talking, discussing, and thinking with me. We, for sure, shared more than just an office.

To my colleagues Katharina Bernecker, Svenja Koletzko, Mirjam Ghassemi. You all supported me in so many ways, especially in this last year. I am grateful for your presence, your company, and your advice. I could always share my doubts and concerns as well as my successes with you.

To Prisca Greiner. Thank you for the administrational support. You often made my life easier, sweeter, and more flowery.

To my colleagues from the PASEZ-project, especially to *Martina Zemp, Mirjam Kessler* and *Mireille Ruffieux* who kindly adopted me as a team member, and to *Marion Landis* and to *Mona Neysari* for some sarcastic moments. I would also like to thank all students for their dedication in helping with data collection and study conduct.

A special thank also to Guy Bodenmann and *Urte Scholz* for reading and commenting on this thesis.

And last but not least, to all my friends and family who patiently supported me during these years in the background.

Summary

Approach/avoidance relationship goals describe an individual orientation for either positive (approach) or negative (avoidance) social outcomes, and previous research revealed that this goal orientation is related to relationship satisfaction in couples. However, less is known about how approach/avoidance relationship goals affect relationship satisfaction. The present thesis examined the association of approach-avoidance relationship goals and different aspects of core importance for relationship functioning and stability such as interpersonal communication, stress communication, and dyadic coping. Furthermore, this thesis intended to integrate goal orientation, a motivational construct, into the vulnerability-stress-adaptation model (Karney & Bradbury, 1995). Hypotheses were tested on a dyadic level with different methodological approaches that all account for the interdependence between partners (Bolger & Laurenceau, 2013; Kenny, Kashy, & Cook, 2006) using data from 368 Swiss heterosexual couples (M_{Age} = 48 years; Range = 20 - 80 years).

The empirical study presented in Part I aimed at replicating previous findings that goal orientation as well as communication quality is associated with relationship satisfaction. A second aim was to test the assumption that self-reported communication quality, as an indicator for interpersonal behavior, mediates the association between goal orientation and relationship satisfaction. As a theoretical and methodological extension to Part I, Part II examined the association between goal orientation and the experience of relationship-related stress as well as self- and partner-reported stress communication and dyadic coping. Taken together, results from Part I and Part II revealed that approach orientation was negatively associated with the experience of relationship-related stress, and positively associated with communication quality, mutual stress communication, and dyadic coping. Avoidance orientation was positively associated with the

experience of relationship-related stress and negatively associated with communication quality, stress communication, and dyadic coping. Partner-reports of stress communication and dyadic coping mainly reflected findings from self-reports. Thus, results from Part I and II demonstrated consistently that approach orientation enhances relationship functioning and avoidance orientation impairs relationship functioning in couples.

Part III further extended research reported in Part I and II by (a) focusing on processes especially related to avoidance orientation in spouses and by (b) analysing behavioral data. Pursuing avoidance relationship goals elicits strong emotional and cognitive reactions in a negative social event. It was hypothesized that this avoidance orientation promotes a loop of negative communication. This hypothesis was tested with sequential analyses using videotaped, observational data (28’470 observations) from the couples engaging in a relationship-related conflict. Results showed that while less avoidance-oriented spouses showed a decline in their likelihood of negative communication over the course of the conflict discussion, the likelihood of more avoidance-oriented spouses to display negative communication behaviors remained at a high level. A second set of analyses revealed that this was only true when avoidance-oriented spouses were confronted with negative communication behavior of their partners.

In summary, findings presented in this thesis contribute to the current goal orientation literature and advance the understanding of relationship functioning conceptually and methodologically. Furthermore, they strongly support the integration of goal orientation into a broad research model such as the vulnerability-stress-adaptation model (Karney & Bradbury, 1995).

Table of Content

Summary II
Table of Content IV
List of Figures VII
List of Tables VIII

General Introduction 1
Approach and avoidance motivation 4
Approach and avoidance as two distinct motivational dimensions 5
Approach and avoidance goals 7
Approach-avoidance goals in intimate relationships 8
Approach-avoidance relationship goals and interpersonal interaction 10
Project: PASEZ 15

Part I: Approach-Avoidance Motivation and the Mediating Role of Communication Quality in Intimate Relationships 17

Abstract 18
Introduction 19
An Approach-Avoidance Perspective 19
Method 23
Participants and Procedure 23
Measures 24
Data Analysis Plan 26
Results 28
Discussion 31
Limitations, future directions, and implications. 33
Concluding comments 35

Part II: Approach-Avoidance Motivation and Stress, Communication of Stress, and Dyadic Coping in Couples 37

Abstract 38
Introduction 39
Approach-Avoidance Motivation 39
Approach-Avoidance Orientation and Stress 41
Approach-Avoidance Orientation and the Communication of Stress 42
Approach-Avoidance Orientation and Dyadic Coping 43
Method 44
Participants and Procedure 44
Measures 45
Data Analysis Plan 48
Results 50
Discussion 54
Approach-Avoidance Orientation and Relationship-Related Stress 55
Approach-Avoidance Orientation and the Communication of Stress 56
Approach-Avoidance Orientation and Dyadic Coping 57
Limitations and Future Directions 59
Conclusion 61

Part III: Doom Loop of Negative Communication in Avoidance-Oriented Spouses 63

Abstract 64
Introduction 65
Observation of Negative Communication in Couples 65
Approach-Avoidance Relationship Goals in Couples 66
Avoidance Goals and Negative Communication 68
Method 69
Procedure and Participants 69
Measures 71

Data Structure and Preliminary Analyses 72

Hypothesis 1: Testing the two-way interaction between time and avoidance motivation 74

Hypothesis 2: Testing the three-way interaction between time, avoidance motivation, and partner's negative communication 78

Discussion 82

Strengths, Limitations and Future Directions 84

Conclusion 88

General Discussion 91

Integration of main findings 92

Contribution to goal orientation literature 94

Limitations and implications for future research 98

Practical implications 103

Conclusion 104

References 105

List of Figures

Figure 1. Research questions of the present thesis integrated into the vulnerability-stress-adaptation model proposed by Karney & Bradbury (1995). ……...… 12

Figure 2. Actor-partner interdependence model as described by Ledermann et al. (2011). 27

Figure 3. The restricted APMeM with approach and avoidance goals of partners as predictor, communication quality as mediator, and relationship satisfaction as criterion variable. ……...…… 28

Figure 4. Actor-Partner Interdependence Model (Kenny, Kashy, & Cook, 2006) depicting approach-avoidance goals and different outcome variables (stress, self-reported and partner-reported stress communication, and self-reported and partner-reported stress dyadic coping). Path coefficients are set equal between partners (e.g., aA1 = aA2). …….....…… 50

Figure 5. Interaction of time and avoidance orientation (AV) on the likelihood of spouses own negative communication behavior. …….....…….. 77

Figure 6. Interaction of time, avoidance orientation (AV) and negative partner communication (NPC) on the likelihood of spouses own negative communication behavior. ……...……. 81

List of Tables

Table 1. *Descriptive statistics, correlations (for women above, for men below the diagonal, and between women and men along the diagonal), and t-tests for women's and men's study variables* …. 26

Table 2. *Effect estimates for the mediation model* …... 29

Table 3. *Mediating effects for the actor-partner interdependence models (APMeM) with goal orientation as predictor variables, communication quality as mediators, and relationship satisfaction as outcome variables* ……... 30

Table 4. *Descriptive statistics, correlations, and t-tests for women's and men's study variables* …. 48

Table 5. *Effect estimates for the Actor-Partner Interdependence Models* …... 53

Table 6. *Results from Multilevel Models predicting negative communication behavior in distinguishable dyads* ...…... 76

Table 7. *Overview of main findings* …... 93

General Introduction

All human beings share a fundamental need to bond and to maintain stable close relationships (Baumeister & Leary, 1995; Reis, Collins, & Berscheid, 2000). Such close relationships can be a source of joy and life satisfaction (Biswas-Diener & Diener, 2001; Diener & Seligman, 2002). Diener and Seligman (2002) found that the one thing the happiest people in their study (i.e., the top 10%) all had in common was that they had strong and positive social relationships. Other studies further demonstrated that relationships are an important source of physical health and help to recover from illness (Cohen, 2005; see Cohen & Herbert, 1996; or Uchino, Cacioppo, & Kiecolt-Glaser, 1996 for reviews). A recent meta-analysis also showed that social bonds have an influence on mortality risk that exceeds other well-established contributors to mortality risk such as smoking behavior and obesity status (Holt-Lunstad, Smith, & Layton, 2010). However, it is not the mere existence of social relationships that contributes to health, it is the *quality* of relationships that matters (Coyne et al., 2001; Eaker, Sullivan, Kelly-Hayes, D'Agostino, & Benjamin, 2007). In other words, even though close relationships may contribute substantially to physical and psychological health, they can also be a source of considerable suffering and emotional pain. Relationship problems contribute to psychopathological symptoms such as depression, anxiety, and substance abuse (e.g., Davila, Bradbury, Cohan, & Tochluk, 1997; Whisman, 2001; Whisman, Uebelacker, & Settles, 2010), and impair physical well-being, for instance, by increasing the likelihood of cardiac death (Coyne et al., 2001; Eaker et al., 2007; Wilcox, Kasl, & Berkman, 1994) and decelerating recovery from breast cancer (Coyne, 2010). Relationship dissolution and disruptions, finally, are among the most critical life events people experience (Amato, 2000; Holmes & Rahe, 1967).

In summary, relationship quality has a significant impact on emotional and physical well-being. Important work has been done in the last decades to examine aspects that help couples to

maintain happy relationships and to support relationship functioning (Bradbury & Karney, 1993; Christensen, 1988; Davila et al., 1997; Fincham & Beach, 1999, 2010; Karney & Bradbury, 1995). This research has identified ineffective interactional processes between partners (e.g., poor dyadic coping, dysfunctional communication) to be the strongest predictors for distress and dissolution in close relationships (Bodenmann & Cina, 2005; Gottman, 1994; Karney & Bradbury, 1995). A largely separate line of research aims to identify motivational tendencies — including commitment (Finkel, Rusbult, Kumashiro, & Hannon, 2002; Frank & Brandstätter, 2002), sacrifices (Impett, Gable, & Peplau, 2005; Van Lange et al., 1997), and personal goals in close relationships (Brunstein, Dangelmayer, & Schultheiss, 1996) — that affect whether couples are able to maintain relationship satisfaction.

The objective of the present thesis is to merge these two lines of research, specifically by examining associations of approach and avoidance relationship goals with different aspects of core importance for relationship functioning such as interpersonal communication, the experience of stress, and dyadic coping. I will first provide a short overview of the historical context of approach-avoidance motivation, present the idea of approach and avoidance as two distinct motivational dimensions, and its application to the concept of goals. Following this, I will provide a summary of contemporary research on approach-avoidance goals in romantic relationships, and a description of the research context of this study. The empirical work of this thesis is then presented in *Part I*, *Part II*, and *Part III*. In the last chapter, strengths and limitations of this work, practical implications and future research will be discussed.

Approach and avoidance motivation

The approach-avoidance distinction first appeared in ancient Greek's studies of philosophy as the concept of *hedonism* (Aristippos, 435 – 355 B.C.E.; Epicurus, 342 – 270 B.C.E.; as cited by Elliot, 2006, p. 111). The hedonistic principle describes a general tendency to pursue pleasure and to avoid pain as the guide for human action. These hedonistic tendencies are further described as present in all organisms across phylogeny (even for unicellular organisms) and they are presumed to be essential for survival, as they move organisms toward beneficial stimuli and away from dangerous or harmful stimuli as a reaction to environmental cues (e.g., light, warmth vs. darkness, cold; Elliot, 1999; Tooby & Cosmides, 1990; Zajonc, 1998). Different approaches have revisited these general tendencies in psychology to explain human behavior and psychodynamic activity (Freud, 1915; James, 1890; Lewin, 1935).

Since these early approaches, a wide variety of theories have emerged that build upon these first descriptions of approaching incentives and avoiding threats. These theories can be categorized by their focus on either stable propensities of personality such as neurobiological differences (e.g., behavioral activation system and behavioral inhibition system; Gray, 1987, 1990), personality traits or temperaments (e.g., neuroticism and extraversion; Eysenck & Eysenck, 1985; McCrae & Costa, 1987), motives (e.g., hope for affiliation and fear of rejection; McClelland, Atkinson, Clark, & Lowell, 1953; Sokolowski, Schmalt, Langens, & Puca, 2000), and affective dispositions (e.g., positive/negative emotionality; Tellegen, 1985; Watson & Clark, 1993), or on the strategies used in different situations (context) such as regulatory focus theory (promotion and prevention; Higgins, 1997) or goal theories (Carver & Scheier, 1998; Elliot, 1999; Gable, 2006).

Approach and avoidance as two distinct motivational dimensions

Even though all these approaches listed above have different foci and emphases, they appear to converge. Elliot and Thrash (2002, 2010) attempted to identify and conceptualize a basic structure of personality by means of three approaches: the motivational system approach (Gray, 1987; see also Konorski, 1967; Schneirla, 1959), the affective disposition approach (Tellegen, 1985; Watson & Clark, 1993), and the personality trait approach (Eysenck & Eysenck, 1985; McCrae & Costa, 1987).

The *motivational system approach* (Gray, 1970) has posited the existence of individual differences in two conceptual nervous systems referred to as the behavioral activation system (BAS) and the behavioral inhibition system (BIS). The BAS is an appetitive/approach system that is sensitive to positive stimuli, it activates behavior in response to signals of reward, and it produces positive affect. The BIS is an aversive/avoidance system that is sensitive to negative stimuli, it inhibits behavior in response to signals of punishment, and it produces negative affect. These systems are located in different brain areas and elicit neural activity that correspond to different experiences. People differ in their level of BAS and BIS sensitivity. These differences are a cause of interindividual differences, and, therefore, BAS and BIS are conceptualized as biologically based stable personality traits (Berkman, Lieberman, & Gable, 2009).

In the *affective disposition approach* (Tellegen, 1985; Watson & Clark, 1993), the central constructs are positive emotionality, that is, a tendency to experience positive emotion and to engage positively in life, and negative emotionality, that is, a tendency to experience negative emotion and to engage negatively in life. Similar to the motivational system approach, people differ in their sensitivity to experience positive and negative emotionality (e.g., Robins, Caspi, & Moffitt, 2000).

In the majority of *personality trait approaches* (Eysenck & Eysenck, 1985; McCrae & Costa, 1987), extraversion and neuroticism are central constructs. Extraversion is described as the disposition to be sociable, active, and optimistic, whereas neuroticism is described as the disposition to worry, to be emotionally unstable, and insecure (Costa & McCrae, 1992; Eysenck, 1981). Elliot and Thrash (2002) analysed these three approaches and demonstrated that BAS, positive emotionality, and extraversion together loaded on one factor, and that BIS, negative emotionality, and neuroticism loaded together on another factor.

A study conducted by Gable, Reis, and Elliot (2003) further compared different measures relevant for the assessment of appetitive and aversive stimuli. Results demonstrated that measures relevant to appetitive stimuli shared common variance with one another, as did measures relevant to aversive stimuli. According to the authors, these two sets of measures are largely independent and are best modeled as internally coherent dimensions.

As a consequence, distinct *approach* and *avoidance temperaments* have been proposed as the core dimensions of these theories (and measures): Approach temperament is defined as a "general neurobiological sensitivity to positive (i.e., reward) stimuli (present or imagined) that is accompanied by a perceptual vigilance for, an affective reactivity to, and a behavioral predisposition toward such [positive] stimuli". Avoidance temperament is defined as a "general neurobiological sensitivity to negative (i.e., punishment) stimuli (present or imagined) that is accompanied by a perceptual vigilance for, an affective reactivity to, and a behavioral predisposition toward such [negative] stimuli" (Elliot & Thrash, 2010 p. 866).

In sum, approach and avoidance temperaments (or motives) are posited as higher-level constructs that are responsible for immediate affective, cognitive, and behavioral tendencies in response to encountered or imagined stimuli (Elliot, 2006; Gable, 2006). Although these

tendencies provide impulses for behavior, they do not provide specific guidelines for how these impulses may be realised. Various forms of self-regulation may be involved in producing behavior beyond instant, biologically based actions or reactions (Berntson & Cacioppo, 2000; Lang, 1995). One such form of self-regulation is goal adoption and pursuit, in the sense that individuals adopt more concrete, cognitively based goals (lower-level constructs compared to temperaments) that direct behavior toward relevant behavioral options (approach goals) or away from specific relevant behavioral options (avoidance goals; Elliot, Gable, & Mapes, 2006). In the following section, the concept of goals from an approach-avoidance perspective will be elaborated in more detail.

Approach and avoidance goals

Goals are commonly defined as internal representations of desired or undesired end states (Austin & Vancouver, 1996; Elliot & Church, 1997). These end states may range from biological set points for internal processes (e.g., regulating body temperature) to complex cognitive depictions of desired outcomes (e.g., career success; Austin & Vancouver, 1996). For example, consider the regulation of body temperature: If body temperature is low, an internal set point will activate different actions to return to its normal state. One action of the body might be shivering through muscle contraction to warm up. The pursuit of this goal can be generated automatically and does not need to enter awareness to lead to action. However, an individual might also experience the need to warm up and this perception of the latent goal might invoke subsequent and conscious behaviors (e.g., get a jacket) aimed at goal attainment (Austin & Vancouver, 1996). Carver and Scheier (1990; see also Carver, 1996) further described a feedback process in which information from the environment is compared to an internal reference point (e.g., goal)

and that behavior is either aimed at reducing the discrepancy between the input and the goal (i.e., approach) or behavior that is aimed at enlarging discrepancy between the input and the goal (i.e., avoidance). The majority of research has been conducted in the achievement domain, where researchers focused on different types of competence-relevant aims of behavior (Elliot & Church, 1997; Elliot & McGregor, 1999, 2001; Elliot & Sheldon, 1997; Elliott & Dweck, 1988; Grant & Dweck, 2003). Recent work has applied this approach-avoidance distinction to interpersonal goals. As we will outline below, these goals have been particularly helpful in understanding motivation in social domains such as friendships and romantic relationships (Elliot et al., 2006; Gable, 2006; see Gable & Berkman, 2008 for a review).

Approach-avoidance goals in intimate relationships

Studies examining effects of goal orientation on relevant aspects of romantic relationships, generally find that approach orientation has a positive influence, whereas avoidance orientation has a negative influence on different aspects of relationship functioning (Frank & Brandstätter, 2002; Impett, Gable, et al., 2005; Impett et al., 2010; Impett, Strachman, Finkel, & Gable, 2008; Strachman & Gable, 2006a). It is important to note, that, analogue to approach and avoidance temperaments, approach and avoidance relationship goals are also relatively independent. In other words, approach is not simply the absence of avoidance, and avoidance is not equivalent to the absence of approach and, therefore, individuals may score high (or low) on approach and avoidance goals at the same time. More importantly, previous research has shown that the processes that mediate the associations between approach relationship goals and relationship outcomes are different from the processes that mediate the associations between avoidance

relationship goals and relationship outcomes (Carver, Sutton, & Scheier, 2000; Gable & Impett, 2012; Higgins, 1997).

One line of research focuses on emotional processes that give a possible explanation for the associations between approach and avoidance orientation and relationship satisfaction (Impett et al., 2010; Impett et al., 2012; Impett, Peplau, & Gable, 2005). For instance, Impett et al. (2010) found in a diary study that daily positive affect mediated the association between approach relationship goals (but not avoidance relationship goals) and relationship satisfaction. In other words, partners high in approach goals experienced more daily positive affect which in turn enhanced feelings of satisfaction and closeness to the partner. Approach social goals (in the context of friendships) were also found to be associated with increased exposure to positive social events (Gable, Reis, & Elliot, 2000). Avoidance goals (but not approach goals) on the other hand, were correlated with higher reactivity[1] to negative social events. When negative social events occurred, individuals high in avoidance goals rated them as more important than those low in avoidance goals (Elliot et al., 2006; Gable, 2006; Gable et al., 2000).

Another line of research focuses on information processing, such as memory and interpretation of ambiguous information, to explain association between goal orientation and relationship satisfaction. Strachman and Gable (2006b), for example, found that after reading a story of a dating couple containing neutral, positive and negative information, individuals high in avoidance goals recalled more negative information than those low in avoidance goals and

[1] *Reactivity* within relationship research often refers to a methodological problem associated with observational procedures (e.g., face-to-face interviews, videotaped interactions) that can be described as "impression management" (compared to social desirability in questionnaire data; see also Jacob, Tennenbaum, Seilhamer, Bargiel, & Sharon, 1994). The *reactivity process* or *reactivity hypothesis* within goal orientation literature, on the other hand, characterizes a propensity in individuals to react strongly (cognitively and emotionally) if a negative social event occurs (Gable, 2006). Reactivity in a motivational sense can rather be understood as negative reciprocity.

reproduced objectively neutral information as more negative. In this study, no effects were found for approach goals. In a signal-contingent daily-experience study, individuals high in approach goals weighed thoughts of passion more heavily in their end-of-day satisfaction rating compared to individuals low in approach goals (Gable & Poore, 2008). Individuals high in avoidance goals, on the other hand, weighed thoughts of security more strongly compared to those low in avoidance goals. Thus, on days in which individuals felt more passion, this information enhanced relationship satisfaction only in individuals high in approach goals. On days in which participants felt more insecure, they reported less relationship satisfaction only if they had strong avoidance goals.

In summary, although all individuals strive for satisfying social relationships, differences in goal orientation seem to be the hub of regulatory activity that influences how successful individuals will be in developing and maintaining close relationships. These regulatory processes, furthermore, seem to be differently related to approach and avoidance goals. The aim of this doctoral thesis is to extend existing literature by examining the association between goal orientation and the *quality* of interpersonal processes within close relationships.

Approach-avoidance relationship goals and interpersonal interaction

As summarized above, the majority of research on approach-avoidance goal orientation in close relationships has focused on cognitive and affective processes, and only few studies have included aspects of interpersonal behavior. Relationship research, on the other hand, mainly follows the premise that relationship satisfaction is a consequence of the behaviors that partners exchange and has demonstrated that deficiencies in interaction quality predict distress and dissolution in couples (Cohan & Bradbury, 1997; Karney & Bradbury, 1995). Even though it

seems to be common knowledge that behavior is goal-directed (Austin & Vancouver, 1996; Gollwitzer & Bargh, 1996; Kelley & Thibaut, 1978), different authors acknowledge that the use of goal constructs remains largely undervalued in the work on marriage and interpersonal relationship (Fincham & Beach, 1999; Gable & Impett, 2012). Theoretical and empirical progress on approach-avoidance motivation in close relationships to date, however, provides a valuable foundation for exploring dimensions of intimate bonds. This might be best explained in terms of Karney and Bradbury's (1995) *vulnerability-stress-adaptation model*.

Within this model, maladaptive dispositions constitute enduring vulnerabilities which affect relationship quality and stability in two ways. First, the likelihood of stressful events in the relationship is increased, and second, the couple's capacity to regulate and adapt effectively to stressful events is impaired. It is assumed that individual differences in approach and avoidance orientation form such a vulnerability that affects (a) how couples experience their relationship and (b) to what degree couples are able to adjust to these experiences. Hence, it is hypothesized that approach and avoidance orientation influence the experience of relationship-related stress and interpersonal behavior in spouses. The following example illustrates these hypotheses:

Tom and Kevin, two middle-aged men who are both in stable relationships, both sometimes have arguments with their partners. Tom finds these conflicts essential for their relationship, even though they can be tough to both of them. But after all these years, they still provide him with an opportunity to grow within his relationship and to get to know his wife even better. During these conflicts he is primarily concerned with wanting both partners to be satisfied with the outcome of the discussion and works towards a resolution of the conflict. Tom, therefore, approaches his wife with an open mind, listens carefully, and also expresses his own arguments. Kevin, however, understands an argument with his wife as a possible threat to their relationship.

He is concerned with avoiding conflicts in the first place and with preventing both partners from being unhappy or angry at each other. Instead of listening what his wife tries to explain, Kevin gets distracted by the angry tone in his partner's voice and automatically responds angrily as well. The underlying motivation in the conflict situation (growth vs. prevention of harm) predicts cognitions, emotions, and, eventually, behaviors differently in Tom and Kevin.

Accordingly, the present work seeks to systematically analyse different aspects of interpersonal behavior such as the experience of relationship-related stress, the quality of interpersonal communication, and dyadic coping as core aspects of relationship functioning (see also Bodenmann, 2005; Christensen, 1988; Derlega, Metts, Petronio, & Margulis, 1993; Fincham & Beach, 1999; Gottman, 1994; Hahlweg & Richter, 2010; Karney & Bradbury, 1995; Markman, Renick, Floyd, Stanley, & Clements, 1993) from an approach-avoidance goal perspective (see Figure 1 for an overview).

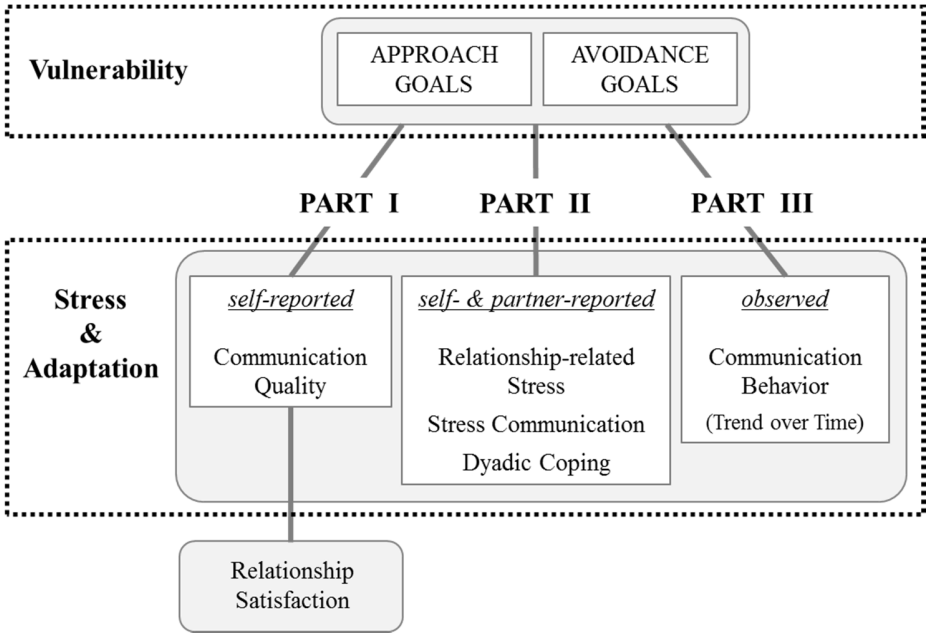

Figure 1. Research questions of the present thesis integrated into the vulnerability-stress-adaptation model proposed by Karney & Bradbury (1995).

Part I specifically aimed at replicating previous findings that goal orientation as well as communication quality is associated with relationship satisfaction. Moreover, it was hypothesized that self-reported communication quality, as an indicator of interpersonal behavior, mediates the association between goal orientation and relationship satisfaction. In more detail, it was expected that the more approach-oriented spouses were the higher levels of communication quality both partners reported. On the other hand, the more avoidance-oriented spouses were, the lower levels of communication quality both partners reported.

It can be argued that self-reports of behavior are biased by cognitions in the sense that, for example, goal orientation influences perception and assessment of individuals' own behavior. Therefore, as a methodological extension to Part I, Part II includes self- and partner-reports. The degree to which partner-reports and self-reports of behavior correspond might help to demonstrate whether perceived behavior (self-report) will be displayed to the partner in a form that allows it to be experienced – and therefore be reported – by the partner. Part II further examines assumptions related to the vulnerability-stress-adaption model, by focusing on the experience of relationship-related stress, on the extent to which spouses communicate their stress to each other, and on how spouses support each other. It is hypothesized that the more approach-oriented spouses are the less relationship-related stress both partners experience, the more they communicate their stress to each other, and the more dyadic coping they both provide. On the other hand, the more avoidance-oriented spouses are, the more stress both partners experience, the less they communicate their stress to each other, and the less dyadic coping they provide. Additionally, partner-reports of stress communication and dyadic coping are expected to reflect findings from self-reports.

Although self- and partner-reports provide first evidence for the hypothesized effects regarding interpersonal behavior as a function of goal orientation, Part III examines the hypotheses with a more objective measure of interpersonal behavior, namely with observational data from a conflict interaction task. Part III especially focuses on a phenomenon related to avoidance orientation, that is, the fact that avoidance-oriented individuals often experience exactly what they want to prevent most. Regarding social relationships, avoidance-oriented individuals want to avoid conflict and rejection. Though, research shows that the likelihood for rejection and the experience of negative affect in social situations seems especially high in avoidance-oriented individuals (Gable, 2006; Mehrabian, 1976; Shipley & Veroff, 1952). This paradox will be examined in Part III, by focussing on avoidance motivation in a conflict interaction task that is prone to elicit a certain level of negativity in communication between spouses. It is hypothesized that due to processes inherent in avoidance regulation, the more avoidance-oriented spouses are the less effectively they adapt to a threatening situation such as a relationship conflict and negative communication displayed by their partner. Sequential analyses of observed negative communication behaviors will shed light on processes characteristic for avoidance-oriented spouses over time that might impair relationship functioning. Part I, II, and III are all based on data stemming from the Sinergia project PASEZ that will be described in more detail in the next chapter.

Project: PASEZ

The PASEZ project is funded by the Swiss National Science Foundation[2] and is administered by three different psychology labs at the University of Zurich. The major aim of our project *Impact of Stress on Relationship development of couples and children: A longitudinal approach on dyadic development across the lifespan* (PASEZ; *Partnerschaft und Stress: Entwicklung im Zeitverlauf*) is to examine predictors of relationship functioning and stability, and the development of romantic relationship over time. The project includes a broad variety of couples with respect to age and relationship duration. Therefore, three cohorts were recruited: The first cohort included couples aged 20 – 35 years, the second cohort couples aged 40 – 55 years, and the third cohort couples aged 65 – 80 years. Since PASEZ also aims at investigating longitudinal processes couples are contacted yearly and invited to participate in a total of five sessions (Wave 1 – 5).

The project targeted a sample size of 360 couples (120 couples per cohort) in order to be able to detect a variety of postulated effects. To be eligible, couples had to be in their current relationship for at least one year, had to be German-speaking, and at least one partner had to be within one age group (the other partner could exceed the age limits by +/- 2 years). In 2011, the study was advertised in different newspapers and on the radio. For the third cohort, additional 1000 addresses of married couples were ordered from the local administration. A total number of 368 Swiss heterosexual couples (Cohort 1 = 122 couples; Cohort 2 = 125 couples; Cohort 3 = 121 couples) participated in the first measurement wave (Sept 2011 to Aug 2012) and were investigated by means of self-reports (e.g., personality traits, goals, levels of stress, self-reported

[2] SNSF: CRSI11_133004/1

communication behavior) and videotaped observations (e.g., communication behavior, dyadic coping). The first data collection meeting (questionnaires and observation) lasted approximately 2.5 to 3 hours per couple. In order to reduce participant burden, the study design was shortened for Wave 2 (Sept 2012 – Aug 2013) and Wave 3 (Sept 2013 – Aug 2014) to approximately 2 hours. Questionnaires assessing individual variables (e.g., demographics, personality, attitudes) was being mailed in advance. Self-report data related to the relationship (relationship satisfaction, relationship goals, dyadic coping etc.) were collected individually for each partner during the meeting. The procedure was evaluated and approved by the local ethics committee of the University of Zurich. Study procedures are described in more detail in the method sections of Part I to III. This doctoral thesis is based on data from Wave 1.

Part I

Approach-Avoidance Motivation and the Mediating Role of Communication Quality in Intimate Relationships

Monika Kuster[1], Sabine Backes[1], Veronika Brandstätter[1], Fridtjof W. Nussbeck[2], Guy Bodenmann[1], and Dorothee Sutter-Stickel[1]

[1]University of Zurich, Switzerland

[2]University of Bielefeld, Germany

A similar version of this article has been submitted to be reviewed for publication.

Abstract

Approach/avoidance relationship goals describe an individual orientation for either positive (approach) or negative (avoidance) social outcomes. This goal orientation is related to relationship satisfaction in couples. Less is known about how approach/avoidance relationship goals affect relationship satisfaction. The present study examines self-reported relationship communication as potential mediator of this association. We tested our hypotheses on a dyadic level with the Actor-Partner Mediation Model using data from 366 heterosexual couples. Results show that approach/avoidance relationship goals are associated with relationship satisfaction. Furthermore, communication quality mediates the association between approach/avoidance relationship goals and relationship satisfaction in couples. These findings advance our understanding of relationship functioning conceptually and methodologically.

Introduction

Partners enter a serious relationship hoping that it will last forever. But reality shows that over time relationship satisfaction declines and reasons to stay together weaken (Karney & Bradbury, 1995; Lavner & Bradbury, 2012). Although ineffective interactional processes between partners (e.g. poor dyadic coping, negative communication) are the strongest predictors for distress and dissolution in close relationships (Bodenmann & Cina, 2005; Gottman, 1994; Karney & Bradbury, 1995), a largely separate line of work aims to identify motivational tendencies — including commitment (Ackerman, Griskevicius, & Li, 2011; Finkel et al., 2002; Frank & Brandstätter, 2002), sacrifices (Impett, Gable, et al., 2005; Van Lange et al., 1997), and personal goals in close relationships (Brunstein et al., 1996) — that affect whether couples are able to cultivate and maintain feelings of relationship satisfaction. The purpose of the present study is to merge these two lines of research, specifically by examining whether approach and avoidance relationship goals covary with self-reported communication quality, and with relationship satisfaction. The present study further examines communication quality as a possible process variable that might explain the association between approach-avoidance motivation and relationship satisfaction.

An Approach-Avoidance Perspective

Approach and avoidance orientation are commonly viewed as independent and distinct motivational systems (Atkinson, 1957; Carver et al., 2000; Higgins, 1997). Gray (1987), for example, postulates appetitive and aversive motivational systems referred to as the Behavioral Activation System (BAS) and the Behavioral Inhibition System (BIS). The BAS is an

appetitive/approach system that is sensitive to positive stimuli that activates behavior in response to signals of reward. The BIS is an aversive/avoidance system that is sensitive to negative stimuli and that inhibits behavior in response to signals of punishment. Although these propensities provide the impulse for behavior, they do not provide specific guidelines for how these impulses may be fulfilled. Thus, individuals adopt more concrete, cognitively based goals that direct behavior toward or away from specific relevant behavioral options (Elliot et al., 2006).

Recent work has applied this approach-avoidance distinction to relationship goals (Gable, 2006). Approach and avoidance relationship goals direct individuals toward potentially positive relational outcomes (e.g., trying to deepen one's relationship) or away from potentially negative relational outcomes (e.g., trying to avoid conflict in one's relationship), respectively (Elliot et al., 2006). For example, a husband who has strong approach goals may see a discussion with his wife as a possibility for growth of their relationship and may be concerned with wanting both partners to be satisfied with the outcome of the discussion. In contrast, a husband strong in avoidance goals may be more concerned with avoiding conflicts and preventing both partners from being unhappy with the outcome. In a diary study (Gable & Poore, 2008), approach goals were associated with higher relationship satisfaction and closeness on a daily basis and with an increase in relationship satisfaction over time, especially when both partners were high in approach goals. Avoidance goals, on the other hand, were related to decreases in relationship satisfaction over time (Gable & Poore, 2008; Impett et al., 2010). Other studies examining effects of goal orientation on relevant aspects of relationships, such as sexual desire (Impett et al., 2008), motives for sacrifices (Impett, Gable, et al., 2005), or friendships in general (Elliot et al., 2006) reported similar findings.

Some studies have examined why and how goal orientation and relationship satisfaction are related (Gable & Berkman, 2008; Gable & Poore, 2008; Impett et al., 2010; Updegraff, Gable, & Taylor, 2004). Impett et al. (2010), for example, found that daily positive affect mediated the association between approach relationship goals and relationship satisfaction. In other words, partners high in approach goals experienced more daily positive affect which in turn enhanced feelings of satisfaction and closeness to the partner. Approach social goals were also found to be associated with increased exposure to positive social events (Gable et al., 2000). Avoidance goals on the other hand, were correlated with higher reactivity to negative social events. When negative social events occurred, individuals high in avoidance goals rated them as more important than those low in avoidance goals (Elliot et al., 2006; Gable, 2006; Gable et al., 2000). Strachman and Gable (2006b) found that after reading a story of a dating couple containing neutral, positive and negative information, individuals high in avoidance goals recalled more negative information than those low in avoidance goals. A signal-contingent daily-experience study (Gable & Poore, 2008) further demonstrated that individuals high in approach goals weighed thoughts of passion more heavily in their end-of-day satisfaction rating than individuals low in approach goals. Individuals high in avoidance goals, on the other hand, weighed thoughts of security more strongly compared to those low in avoidance goals. Thus, on days in which individuals felt more passion, this information enhanced relationship satisfaction only in individuals high in approach goals. On days in which participants felt more insecure, they reported less relationship satisfaction only if they had strong avoidance goals. In sum, these findings demonstrated that affective and cognitive processes mediate the association between goal orientation and relationship satisfaction.

In our study, we propose that goal orientation not only affects cognitive and emotional processes but also behavioral aspects in couples. The general idea that the perception of a goal may manifest and invoke subsequent conflict behaviors has been discussed earlier (Austin & Vancouver, 1996; Fincham & Beach, 1999). We consequently assume that the way partners behave in a relationship-relevant conflict is a consequence of their goal orientation toward each other and toward their relationship. In relationship research, quality of dyadic interaction is known as one of the most important predictors of relationship satisfaction (see Karney & Bradbury, 1995 for a review). Furthermore, the way conflicts are managed is more important than the content of the conflict itself (Markman, Stanley, & Blumberg, 2001) and deficits in communication skills are a strong predictor for relationship distress or dissolution (Bodenmann, Kaiser, Hahlweg, & Fehm-Wolfsdorf, 1998; Gottman, Coan, Carrere, & Swanson, 1998; Karney & Bradbury, 1995; Weiss & Heyman, 1997). Even though these are well known findings in relationship research, to our knowledge, the concept of goal orientation has not been applied to these important behavioral aspect of relationship functioning. We hypothesize that approach orientation is positively associated with relationship satisfaction, and avoidance orientation is negatively associated with relationship satisfaction of both partners. We further expect that self-reported communication quality mediates the association between goal orientation and relationship satisfaction.

Method

The present study forms part of a large research project on the impact of stress on relationship development of couples and children across the lifespan.

Participants and Procedure

A total of 368 heterosexual couples participated in the study. Two couples were removed from the analyses because one member of the couple did not complete all questionnaires. Of the 366 couples that were included in the analyses, 243 couples were married (66.3%) and 237 couples had children (64.8 %). Mean age of women was 47 years (*SD* = 18.43) and for men 49 years (*SD* = 18.31). Mean relationship duration was 22 years (*SD* = 18.21; ranged from 1 year to 60 years) and covaried with age. As for highest level of education completed, for women, 6% attended the mandatory school years (nine years), 40% completed vocational training, 21% completed high school, and 32% completed college or university. For men, 3% attended the mandatory school years (nine years), 35% completed vocational training, 13% completed high school, and 49% completed an academic degree.

The study was advertised in newspapers and on the radio as a study on the impact of stress on relationship development of couples. To be eligible, couples had to be in the current relationship for at least a year. Interested couples were contacted by phone and informed about the content and the procedure of the study. Participants were first asked to complete a set of self-report measures at home before they came to our laboratory. They were requested to complete questionnaires independently from their partner. At the laboratory, couples were given more specific information about the session and both partners had to agree to the consent form in order

to continue. Subsequently, each spouse was escorted to a separate room. While separated, each participant was asked to complete three sets of questionnaires. Then, couples participated in several short videotaped interaction sequences.[3] Finally, both partners were separated again for the last set of questionnaires before they received some closing information and 100 Swiss Francs (approximately $108). Procedure was evaluated and approved by the local ethical committee of the University of Zurich.

Measures

Goal orientation was assessed with an eight-item measure of approach and avoidance goals originally developed by Elliot et al. (2006) for use in a more general context of close relationships (e.g. friendships), and later adapted for romantic relationships (Gable, 2006; Impett et al., 2008). Participants responded to such items as "I will be trying to deepen my relationship with my partner" (approach relationship goals; four items; M = 6.01, SD = 0.84, α = .73 for women, and M = 5.88, SD = 0.85, α = .75 for men) and "I will be trying to avoid disagreements and conflicts with my romantic partner" (avoidance relationship goals; four items; M = 4.89 , SD = 1.47, α = .76 for women, and M = 5.06, SD = 1.32, α = .73 for men) on a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*). The correlation between approach and avoidance goals was r = .30 (p < .01) for women and r = .36 (p < .01) for men, which is in line with previous studies (Elliot et al., 2006; Impett et al., 2010).

Relationship satisfaction was assessed with the German version of the relationship assessment scale (RAS; Hendrick, 1988; Sander & Böcker, 1993). The RAS assesses

[3] Extensive time-series analyses (such as sequential and cross-lagged analyses) of the videotaped interactions will be published separately, and, therefore, this observational data is not further considered here.

relationship satisfaction with seven items, such as “In general, how satisfied are you with your relationship?” or “How often do you wish you hadn’t gotten into this relationship?” (reverse coded) on a 5-point scale with various verbal anchors according to how the items are phrased (M = 4.33, SD = .50, α = .85 for women, and M = 4.37, SD = .49, α = .86 for men).

Communication quality was measured with the marital communication questionnaire (MCQ; Bodenmann, 2000), which is a self-report version based on the affective communication categories identified by Gottman (1994) in his SPAFF coding system and assesses different positive and negative communication behaviors. Participants responded to such items as “I validate my partner’s opinion and feelings”, “I criticize my partner” or “I withdraw from communication” on a 6-point scale (1 = *never* to 6 = *very often*). For economic reasons, we used 12 out of the 19 original items. As suggested by Ledermann, Bodenmann, Rudaz, and Bradbury (2010), positive and negative communication were combined into a total score with high scores indicating positive communication (M = 4.60, SD = .56, α = .79 for women, and M = 4.68, SD = .53, α = .81 for men).

Descriptive statistics of the model variables (approach relationship goals, avoidance relationship goals, communication quality, and relationship satisfaction) and comparisons of women’s and men’s key variables can be found in Table 1. All in all, the couples that participated in our study reported rather high communication quality as well as relationship satisfaction. Despite a high standard deviation, avoidance goals are unrelated to reported communication quality and relationship satisfaction. Women reported significantly more approach relationship goals and significantly less avoidance relationship goals compared to men. Men reported significantly higher communication quality and marginally higher relationship satisfaction compared to women.

Table 1

Descriptive statistics, correlations (for women above, for men below the diagonal, and between women and men along the diagonal), and t-tests for women's and men's study variables

	Women		Men		Difference between women and men		Correlations			
	M	*SD*	*M*	*SD*	$t_{(df=365)}$	*d*	1	2	3	4
1 Approach goals	6.01	0.84	5.88	0.85	3.31**	0.23	.15**	.30**	.21**	.27**
2 Avoidance goals	4.89	1.47	5.06	1.32	-1.98*	0.12	.36**	.30**	-.06	-.07
3 Communication quality	4.60	0.56	4.68	0.53	-2.60*	0.15	.32**	-.04	.35**	.42**
4 Relationship satisfaction	4.33	0.50	4.37	0.49	-1.96^{+}	0.09	.30**	.04	.53**	.61**

Note: *M* = mean, *SD* = standard deviation, *df* = degrees of freedom, *d* = Cohen's *d*. $^{+}$ $p < .10$, * $p < .05$, ** $p < .01$

Data Analysis Plan

In the current study, we assessed both members of romantic couples to examine the effects of relationship goals on communication quality and relationship satisfaction. The actor-partner interdependence model (APIM; Kenny et al., 2006) was used to assess the contribution of both partners' relationship goals. The APIM allows for the estimation of both the effect that a person's predictor variable has on his/her own criterion variable (known as actor effect) and the effect that a person's predictor variable has on his/her partners' criterion variable (known as partner effect). The APIM treats the dyad rather than the individual as the unit of analysis, and controls for the fact that data from two members of a couple are not independent, e.g. the relationship quality of one partner is not independent of the other partner's (Kenny et al., 2006). Thus, actor and partner effects as well as the correlations between variables that are dependent on each other are estimated simultaneously in one model, controlling for each other and the dependency in the data.

To test the mediation hypothesis, we used the APMeM (actor-partner-interdependence-mediation-model; Ledermann, Macho, & Kenny, 2011). As shown in Figure 2, the paths labelled *a* describe the association between the predictor variable and the mediator ($X \rightarrow M$), paths labelled *b* describe the association between the mediator and the dependent variable ($M \rightarrow Y$), and paths labelled *c'* describe the association between the predictor and criterion variable ($X \rightarrow Y$).

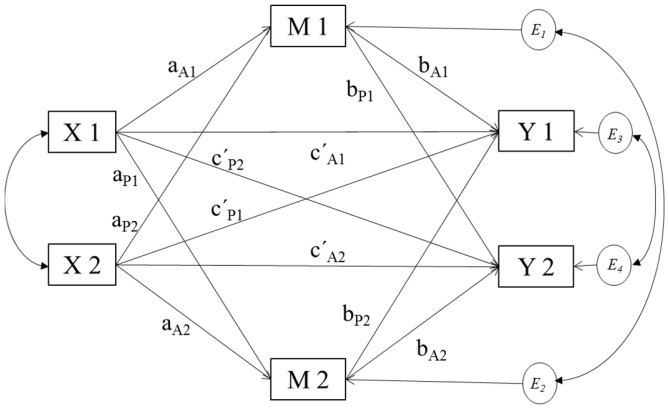

Figure 2. Actor-partner interdependence model as described by Ledermann et al. (2011).

The mediating mechanism was tested by the bootstrap method (Bollen & Stine, 1990; Preacher & Hayes, 2008) and the phantom model approach (Ledermann et al., 2011; Macho & Ledermann, 2011). Bias-corrected bootstrap confidence intervals were calculated based on 5000 bootstrap samples. As shown in Figure 3, we tested a mediation model which involved simultaneously testing four initial variables (his and her approach and avoidance relationship goals), two mediating variables (his and her communication quality), and two outcome variables (his and her relationship satisfaction). Because there are no clear-cut predictions concerning gender effects inferable from the existing literature, we tested a restrictive model, in which we

treated path coefficients between the two partners of a dyad as equal (e.g. a_{A1} is equal to a_{A2}; see Figure 2).[4]

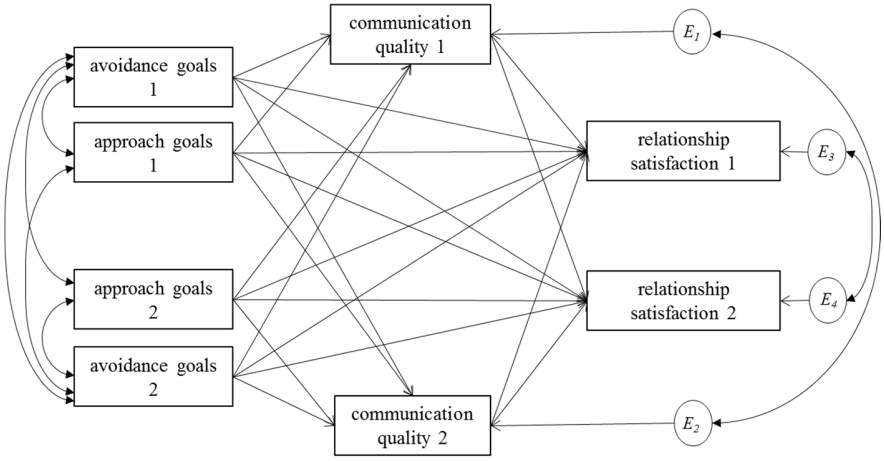

Figure 3. The restricted APMeM with approach and avoidance goals of partners as predictor, communication quality as mediator, and relationship satisfaction as criterion variable.

Results

The mediation model shows an acceptable fit regarding the χ^2 and a good fit for additional model indices, $\chi^2(10) = 18.858$, $p = .042$, CFI = .986, RMSEA = .049. The prediction of communication quality by goal orientation (approach and avoidance) accounts for 10% of variance in women and 12% in men, whereas goal orientation and communication quality account together for 31% of the variance in relationship satisfaction in women and 32% in men. All effect estimates are presented in Table 2.

[4] Although no hypotheses were formulated with respect to gender or age group differences in model parameters, we explored these in supplementary analyses. With respect to gender, no relevant differences could be found between model parameters. Compared with the reported model, only small differences up to .05 in unstandardized path coefficients occurred. Before controlling for age, couples were divided in three age groups: The youngest couples ranged from 20 to 35 years (N = 121), middle-aged couples ranged from 40 to 55 years (N = 125), and oldest couples ranged from 65 to 80 years (N = 120). Multi group analyses revealed no significant group difference. The direction and size of all effects remained virtually the same.

Table 2

Effect estimates for the mediation model

Effect	*Estimate*	*SE*	*p*	*Standardized Estimate*[i] *women / men*	*Bootstrapping (5000 samples) 95% CI BC*
a effects *(X → M) approach*					
Actor effect	0.20	0.02	<.001	.29 / .32	0.15, 0.26
Partner effect	0.07	0.02	.005	.10 / .11	0.02, 0.11
effects *(X → M) avoidance*					
Actor effect	-0.05	0.02	<.001	-.13 / -.13	-0.08, -0.02
Partner effect	-0.03	0.01	.044	-.07 / -.08	-0.06, -0.00
b effects *(M → Y)*					
Actor effect	0.31	0.03	<.001	.35 / .33	0.26, 0.37
Partner effect	0.20	0.03	<.001	.21 / .23	0.14, 0.27
c effects *(X → Y) approach*					
Actor effect	0.10	0.02	<.001	.17 / .18	0.06, 0.15
Partner effect	0.04	0.02	.064	.06 / .06	-0.00, 0.08
effects *(X → Y) avoidance*					
Actor effect	-0.01	0.01	.216	-.04 / -.04	-0.04, 0.01
Partner effect	-0.01	0.01	.504	-.02 / -.02	-0.03, 0.01
Variance explained					
R_{M1}^2	.10				0.06, 0.14
R_{M2}^2	.12				0.06, 0.17
R_{Y1}^2	.31				0.23, 0.38
R_{Y2}^2	.32				0.23, 0.39

Note: *X* = goal orientation; *M* = communication; *Y* = relationship satisfaction; *SE* = standard error; *p* = level of significance; CI = confidence interval; BC = bias corrected; [i] standardized estimates differ for female and male partners since unstandardized path coefficients have been set equal to each other but not variances and residual variances.

Both actor and partner effects from approach goals to communication quality are positive and statistically significant, and both actor and partner effects from avoidance goals to communication quality are negative and statistically significant. For the association between communication quality and relationship satisfaction, both actor and partner effects are positive and statistically significant. Thus, positive communication in both partners is strongly related to their own and their partner's relationship satisfaction. For the direct effects from goal orientation to relationship satisfaction, the actor effects from approach goals to relationship satisfaction are

positive and statistically significant, which means that approach relationship goals of each partner are positively related to their own relationship satisfaction. Neither the direct partner effects for approach goals nor any of the direct actor or partner effects for avoidance goals are significant.

In our mediation model, eight indirect effects (IE) can be tested: the actor-actor IE ($a_{A1}b_{A1}$; see Figure 2), the partner-actor IE ($a_{P1}b_{A2}$), the actor-partner IE ($a_{A1}b_{P1}$) and the partner-partner IE ($a_{P1}b_{P2}$), each for approach relationship goals and avoidance relationship goals. All four IEs for the approach goals as predictor are positive and statistically significant and all four IEs for the avoidance goals as predictor are negative and statistically significant (see Table 3).

Table 3

Mediating effects for the actor-partner interdependence models (APMeM) with goal orientation as predictor variables, communication quality as mediators, and relationship satisfaction as outcome variables

Effect	*Estimate*	*SE*	*Bootstrapping (5000 samples) 95% CI BC*	*p* (two-tailed)
ApG → CQ → RS				
Actor-actor effects	0.06	0.01	0.04, 0.08	.002
Actor-partner effects	0.04	0.01	0.03, 0.06	.001
Partner-actor effects	0.02	0.01	0.01, 0.04	.011
Partner-partner effects	0.01	0.01	0.01, 0.03	.006
AvG → CQ → RS				
Actor-actor effects	-0.02	0.00	-0.03, -0.01	.002
Actor-partner effects	-0.01	0.00	-0.02, -0.01	.001
Partner-actor effects	-0.01	0.00	-0.02, -0.00	.032
Partner-partner effects	-0.01	0.00	-0.01, -0.00	.029

Note: ApG = approach relationship goals; AvG = avoidance relationship goals; CQ = communication quality; RS = relationship satisfaction; CI = confidence interval; BC = bias corrected; *SE* = standard error; *p* = level of significance

The actor-actor IEs indicate that within each partner the association between approach and avoidance goals and relationship satisfaction was mediated by one's own communication quality.

The partner-partner effects indicate that within each person the association between approach and avoidance goals and relationship satisfaction was mediated by partners' communication quality. The actor-partner and partner-actor IEs indicate that association between individuals' goal orientation and partners' relationship satisfaction was mediated by one's own communication quality or the partners' communication quality, respectively.

In summary, self-reported communication quality mediates the association between goal orientation and relationship satisfaction in couples. We found a fully mediated effect of approach goals on partners' relationship satisfaction and a partially mediated effect of approach goals on one's own relationship satisfaction either through individuals or partners' communication quality. Partial mediation for approach goal actor effects still implies a direct relation of approach goals on relationship satisfaction that cannot exclusively be explained by communication. Finally, we found a fully mediated effect of avoidance goals on relationship satisfaction through communication quality within as well as between partners.

Discussion

The approach-avoidance distinction has emerged as an important element in understanding the association between relationship goals and relationship satisfaction (Gable & Impett, 2012; Impett et al., 2010). Some studies have focused on finding an explanation for this association and demonstrated that approach and avoidance goals influence cognitive as well as emotional processes (Gable, 2006; Impett et al., 2010; Kogan et al., 2010; Laurenceau, Troy, & Carver, 2005; Strachman & Gable, 2006a; Updegraff et al., 2004). To our knowledge, no study so far has addressed the behaviour related aspect of communication quality as possible mediating mechanisms between goal orientation and relationship satisfaction in romantic relationships.

This is surprising because in the area of relationship research it is well known that interaction quality is the strongest predictor for relationship satisfaction (Bodenmann & Cina, 2005; Karney & Bradbury, 1995; Markman et al., 2001). We believe that goal orientation directly affects interpersonal behavior because goals are “primarily considered to be directors of action” (Gollwitzer & Bargh, 1996, p.1) and, at least in other areas as e.g., achievement context, research on goals focuses not only on how goal pursuit is regulated but also how goals guide actions. Therefore, we assume that approach and avoidance goal orientation, as a cognitive representation of a desired or undesired end state, will be translated into interpersonal behavior which in turn affects the relationship satisfaction of both partners.

In our study, we have focused on self-reported communication quality as a first indicator of behavior important for relationship functioning. We tested a mediation model that examined communication quality in couples as a possible mediator and underlying process variable of the association between goal orientation and relationship satisfaction. We assessed both members of romantic couples to account for the interdependent nature of relationship processes and examined the actor and partner effects of relationship goals on communication quality and relationship satisfaction.

We found effects within a person as well as between partners. First, the higher individuals were in approach relationship goals the more positive interpersonal communication behaviors they reported, whereas individuals higher in avoidance relationship goals reported more negative communication behaviors. Also partners of individuals higher in approach relationship goals reported more positive interpersonal communication behaviors, whereas partners of individuals higher in avoidance relationship goals reported more negative communication behaviors. This implies that interpersonal communication between partners can either be viewed as an

opportunity to share positive events and to deepen one's relationship, characterized by acceptance and understanding, or as a possibility to experience conflict and rejection, where negative communication behaviors such as criticism and withdrawal prevail. Furthermore, the reported communication quality was strongly related to relationship satisfaction. This is in line with existing research showing the importance of communication quality for relationship satisfaction (Gottman, 1994; Karney & Bradbury, 1995; Weiss & Heyman, 1997). Additionally, all models were controlled for gender and age group effects. We did not find any differences neither for gender nor for the different age cohorts which speaks to the generalizability of our results.

The general implication of these findings is that cognitive representations and attitudes affect interactional processes, which in turn influence relationship satisfaction. Or in other words, we believe that how satisfied partners are within their romantic relationship depends on the way partners behave towards each other which in turn depends on their underlying motivation.

Limitations, future directions, and implications.

There are many strengths of our study, such as the large sample size and a broad variety in relationship duration and age. Especially the diverse sample extends the existing literature in an important way because to date most studies on approach/avoidance goals have been conducted with either student samples or rather young participants (Impett et al., 2010). Another strength stems from the use of the APIM to examine the simultaneous influence of both partner's goal orientation on interpersonal communication and relationship satisfaction. However, the following limitations should be kept in mind when interpreting our findings.

Limitations and future directions. The results are based on cross-sectional data, which, of course, do not allow any conclusion regarding causal inferences. Still, communication is well known as a strong predictor for relationship satisfaction (Gottman, 1994; Karney & Bradbury, 1995). The findings of Impett et al. (2010) support the assumption that goal orientation predicts relationship satisfaction and communication behavior in dyads seems to mediate this relation. However, it might also be possible that communication quality influences goal orientation of the partners. In long-term relationships, expectations of partner's communication behavior may lead to the adoption of approach or avoidance goals regarding one's own relationship. If one member of the couple wants to address an issue of concern but expects the partner to react with criticism or anger, this person is more likely to adopt conflict-avoidant cognitions and goals. Longitudinal data will provide more insights which variable influences the other more strongly over time.

Despite the diversity of our sample, couples are relatively homogenous with respect to most of our variables. At least for relationship satisfaction, the variance is far more restricted than we would expect it in a population-based sample to be. But restricted variance could also lead to a more conservative testing, i.e. it is more difficult to obtain significant results which again might booster our findings. Nonetheless, higher diversity within data would be desirable, e.g. a replication of our findings within unsatisfied couples or couples in therapy, to strengthen our supposition. Even though our study provides first evidence that goal orientation is translated into interaction processes, future research will have to examine other possible aspects of core importance for relationship functioning such as dyadic coping or sexual activity. Furthermore, observational data should also be included to expand knowledge about the influence of goal orientation on behavioral aspects in intimate relationships.

Implications. Interventions or couple therapy often focus on inadequate, inefficient or even harmful communication that leads to relationship problems, a decline in relationship satisfaction or relationship dissolution (Baucom, Weusthoff, Atkins, & Hahlweg, 2012). The goal of communication training is to improve problem-solving skills and intimacy-focused communication, and to reduce dysfunctional interaction patterns (Markman, Stanley, Rhoades, & Whitton, 2008). Our findings suggest that an intervention should not only address the behavior itself but also identify the underlying motivation of the specific behavior. This assumption is supported by studies on avoidance motivation in psychotherapy (Berking, Grosse Holtforth, & Jacobi, 2003; Elliot & Church, 2002; Grosse Holtforth, Grawe, Egger, & Berking, 2005). A reduction in avoidance motivation leads to higher satisfaction of motivational goals and thus to a better therapy outcome (Grawe, 2004). Therefore, it is important to understand the structure, the determinants and the components of interpersonal problems to optimize psychotherapeutic interventions (Grosse Holtforth, Bents, Maule, & Grawe, 2006, p. 172). This implies that couple therapy should not only address an ineffective behavior such as negative communication habits but also the goal orientation for a broader understanding of the communication between partners. Otherwise the behavior might persist despite long and intensive intervention.

Concluding comments

Notwithstanding its limitations, the research reported here indicates that approach and avoidance relationship goals are related to the way partners report to communicate with each other. Partners high in approach goals and partners low in avoidance goals report a more positive communication, partners high in avoidance goals and partners low in approach goals report a more negative communication towards their partner. These positive and negative communication

even-handedly affect relationship satisfaction in men and women. Integrating the concept of goal orientation in intervention methods and therapeutic approaches may lead to a deeper understanding in terms of relationship functioning that could facilitate positive changes in couples. Future research, especially with longitudinal data, will be needed to support these insights in relationship functioning.

Part II

Approach-Avoidance Motivation and Stress, Communication of Stress, and Dyadic Coping in Couples

Monika Kuster[1], Sabine Backes[1], Veronika Brandstätter[1], Fridtjof W. Nussbeck[2], Thomas N. Bradbury[3], Dorothee Sutter-Stickel[1], and Guy Bodenmann[1]

[1]University of Zurich, Switzerland

[2]University of Bielefeld, Germany

[3]University of California, Los Angeles, USA

A similar version of this article has been submitted to be reviewed for publication.

Abstract

In romantic relationships, spouses differ in the extent to which they are oriented towards positive outcomes such as intimacy (approach orientation) or away from negative outcomes such as conflict (avoidance orientation). The present study examines the association of approach-avoidance relationship goals and different aspects of core importance for relationship functioning, such as self-reported relationship-related stress, stress communication, and dyadic coping. We tested our hypotheses on a dyadic level with the Actor-Partner Interdependence Model using data from 368 heterosexual couples. Approach-orientation was negatively associated with relationship-related stress, and positively associated with mutual stress communication and dyadic coping. Avoidance-orientation was positively associated with relationship-related stress and negatively associated with dyadic coping. Furthermore, avoidance orientation was associated with a difference between one's own stress communication and the perception of partner's stress communication. Implications regarding relationship functioning and the maintenance of stable relationships are discussed.

Introduction

People's motivations have a powerful impact on their emotions and perceptions, and eventually on the quality of their relationships. *Approach relationship goals* (i.e., goals focused on the pursuit of positive experiences in one's relationship such as fun, growth, and intimacy) and *avoidance relationship goals* (i.e., goals focused on avoiding negative experiences such as disagreement and conflict) have been associated with cognitions, emotions and perceptions in close relationships and they predict relationship satisfaction (see Gable & Berkman, 2008 for a review). However, some important aspects of relationship quality and relationship functioning, such as relationship-related stress, stress communication, and dyadic coping (i.e., the way couples jointly deal with stressors) have not been studied with regard to goal orientation in couples so far. It has been shown that high levels of stress, inadequate communication of stress and deficient dyadic coping are significant predictors of reduced relationship satisfaction, less stability and a higher likelihood of separation or divorce (Hahlweg & Richter, 2010; Karney & Bradbury, 1995; Randall & Bodenmann, 2009). The purpose of the present study is to examine whether approach and avoidance goals covary with the self-reported experience of relationship-related stress, whether approach and avoidance goals are related to spouses' communication of stress, and, finally, how spouses cope together with demanding encounters.

Approach-Avoidance Motivation

Approach and avoidance orientation are commonly viewed as independent and distinct motivational systems (Atkinson, 1957; Carver et al., 2000; Higgins, 1997). Approach orientation promotes movement towards desired end states whereas avoidance orientation increases

movement away from undesired end states (Elliot, 2008; Elliot & Thrash, 2002; Gray, 1990). Recent work has applied this approach-avoidance distinction to interpersonal goals (Gable, 2006). Approach and avoidance social goals, compared to approach and avoidance motivation in general, are lower-level cognitive representations that direct individuals toward positive relational outcomes (e.g., deepening one's relationship) or away from negative relational outcomes (e.g., conflict in one's relationship), respectively (Elliot et al., 2006). Studies examining effects of goal orientation on relationship satisfaction demonstrate that a strong approach orientation predicts higher levels of relationship satisfaction and reduces feelings of loneliness. In contrast, a strong avoidance orientation is associated with reduced relationship satisfaction, more feelings of loneliness and relationship insecurity (Gable, 2006; Impett et al., 2010). Some studies have focused on how goal orientation influences relationship satisfaction (Gable & Berkman, 2008; Gable & Poore, 2008; Impett et al., 2010; Kuster et al., submitted; Updegraff et al., 2004): Approach goals were associated with an increased experience of daily positive affect, which in turn enhanced feelings of satisfaction and feelings of closeness to the partner (Impett et al., 2010) and approach relationship goals predicted greater sexual desire (Impett et al., 2008). Furthermore, approach orientation is also related to an increased initiation of positive social events (Gable et al., 2000). Avoidance goals, on the other hand, correspond with higher reactivity to negative social events: When negative social events occur, individuals high in avoidance goals rate them as more important than those individuals low in avoidance goals (Elliot et al., 2006; Gable, 2006; Gable et al., 2000).

Theoretical and empirical progress on approach-avoidance motivation provides a valuable foundation for exploring dimensions of intimate bonds. Relationship research has identified and examined different aspects of relationship quality that are crucial for relationship functioning.

Deficiencies in marital communication, self-disclosure, and dyadic coping are among the most significant predictors of relationship satisfaction and stability (Bodenmann, 2005; Derlega et al., 1993; Karney & Bradbury, 1995). It has also been shown that stressful circumstances that spouses encounter may result in negative behavior and deterioration in marriage (Cohan & Bradbury, 1997; Randall & Bodenmann, 2009). Because of the high impact on relationship functioning, it is important to take a closer look on the underlying motivation of these aspects. To our knowledge, there are no studies on approach and avoidance goals and their relation to the experience of stress, the communication of stress (a form of self-disclosure) and dyadic coping in couples to date. First studies examined the association between goal orientation and interaction quality between spouses such as interpersonal communication (Kuster et al., submitted) and responsiveness (Impett et al., 2010). Results showed that the more approach-oriented spouses were, the more positive interpersonal communication behavior they reported and the more responsive they were rated by outside observers, whereas the more avoidance-oriented spouses were, the more negative communication behaviors they reported and the less responsive they were rated. The present study supplements this work by examining relationship-related stress, stress communication and dyadic coping as relevant aspects of relationship quality. Hypotheses and relevant research will be discussed in more detail below.

Approach-Avoidance Orientation and Stress

Genuine dyadic stress, defined as any form of emotional or problem-centered stress (e.g., the birth of a child, search for an apartment) directly concerning the couple as a unit, is known to impose strains upon close relationships (Bodenmann, 1997; Randall & Bodenmann, 2009; Story & Bradbury, 2004). A focus on negative outcomes or events, which is inherent in avoidance

regulation, is likely to elicit and sustain threat appraisals, anxiety and self-protection processes, as the individual is constantly reminded of aversive possibilities (Elliot & Church, 1997; Elliot & Sheldon, 1997), including conflicts or the likelihood of events adverse to the relationship. Hence, avoidance-oriented individuals may generally experience more stress. Approach-oriented individuals, on the other hand, focus on rewarding outcomes such as intimacy and validation and are more attuned to opportunities to feel closer to each other (Gable et al., 2000). Because of their self-regulatory focus, approach-oriented spouses may generally experience less stress. In our study, we focus on stress experienced within the relationship, such as conflicts, partners' difficult temperaments, and negotiations over interpersonal distance. It is expected that the more approach-oriented spouses are, the less relationship-related stress they will report, while the more avoidance-oriented spouses are, the more relationship-related stress they will report.

Approach-Avoidance Orientation and the Communication of Stress

Stress communication is one aspect of self-disclosure (Bodenmann, 1995), defined as the process of revealing personal information about oneself to another (Derlega et al., 1993). Self-disclosure is associated with the quality and stability of close relationships, presumably because it can serve as an act of relationship maintenance (Sprecher & Hendrick, 2004) and as a means of enhancing trust and intimacy (Bodenmann, 2005). At the same time, self-disclosure entails making oneself vulnerable to another. The potential risk of opening up to another person and then being hurt, judged, misunderstood, or even ignored, may seem, at least to some individuals, worse than the actual problem (Fisher, Goff, Nadler, & Chinsky, 1988; Harris, Dersch, & Mittal, 1999). Self-disclosure in the context of stress communication in couples involves the communication of stressful events and negative emotions, seeking emotional support, and asking

for assistance or help. From the goal orientation literature, we know that the more individuals try to avoid situations involving the possibility of embarrassment or getting hurt, the less likely they are to ask others for help or advice (Butler, 2007; Elliot et al., 2006). We expect that the more approach-oriented spouses are, the more they will communicate their stress and negative feelings to their partner and the more they will ask for support. The more avoidance-oriented spouses are, the less likely is it that they will communicate stress-relevant information to their partner.

Approach-Avoidance Orientation and Dyadic Coping

Dyadic coping is defined as a dyadic process in which both partners respond supportively to the other partner's stress signals by validating the partner's feelings, giving advice, or providing practical support. Dyadic coping is a robust predictor of relationship quality and stability (see Bodenmann, 2005, for an overview; Herzberg, 2013; Papp & Witt, 2010; Wunderer & Schneewind, 2008) and defined as the extent to which exchanges between partners convey mutual understanding, validation, and caring determines the experience of intimacy (intimacy process model; Reis & Patrick, 1996). As part of the concept of dyadic coping, intimacy-providing behaviors can be described through the experienced availability of advice and information, or the knowledge that the partner can be trusted to provide help (Cutrona, 2004). Approach-oriented spouses are sensitive to the possibility of enhancing intimacy within their relationship (Gable & Impett, 2012), and providing or exchanging mutual support may be one way to achieve this goal. Avoidance-oriented spouses, on the other hand, are sensitive to the possibility of events that could harm the relationship (Gable & Berkman, 2008). Thus, dealing with stress, conflict, or negative influences on the relationship in general may rather be avoided, which in turn may lead to a decrease in dyadic coping. We expect that the more approach-

oriented spouses are, the more they will provide dyadic coping to their partner. The more avoidance-oriented spouses are, the less likely they are to provide dyadic coping to their partner.

Method

The present study forms part of a large research project on the impact of stress on relationship development of couples and children across the lifespan.

Participants and Procedure

A total of 368 Swiss heterosexual couples participated in the present study. To be eligible, couples had to be in their current relationship for at least a year. Of these couples, 244 couples were married (66.3%) and 239 couples had children (64.9%). Mean age of women was 47 years (*SD* = 18.47) and for men 49 years (*SD* = 18.33). Mean relationship duration was 21 years (*SD* = 17.97; ranged from 1 year to 60 years). As for highest level of education completed, for women, 6% attended the mandatory school years (nine years), 40% completed vocational training, 21% completed high school, and 32% completed college or university. For men, 3% attended the mandatory school years (nine years), 35% completed vocational training, 13% completed high school, and 49% completed an academic degree.

The study was advertised in newspapers and on the radio as a study of the impact of stress on relationship development of couples. Interested couples were contacted by phone and informed about the procedure of the study. Participants were first asked to complete a set of self-report measures at home before they came to our laboratory. They were instructed to complete questionnaires independently from their partner. At the laboratory, couples were given more specific information about the session and both partners had to agree to the consent form in order

to continue. Subsequently, each spouse was escorted to a separate room where they completed three sets of questionnaires. Then, couples participated together in several videotaped interactions (since this data is not part of the present research, it will not be further discussed). Finally, both partners were separated again for the last set of questionnaires before they received a debriefing and 100 Swiss Francs (approximately $108). The procedure was evaluated and approved by the local ethical committee of the University of Zurich.

Measures

Goal orientation was assessed with an eight-item measure of approach and avoidance goals originally developed by Elliot et al. (2006) for use in a more general context of close relationships (e.g., friendships), and later adapted for romantic relationships (Gable, 2006; Impett et al., 2008). Participants responded to such items as "I will be trying to deepen my relationship with my partner" (approach relationship goals; four items; M = 6.07, SD = 0.84, α = .73 for women, and M = 5.88, SD = 0.85, α = .75 for men) and "I will be trying to avoid disagreements and conflicts with my romantic partner" (avoidance relationship goals; four items; M = 4.89 , SD = 1.47, α = .76 for women, and M = 5.06, SD = 1.32, α = .73 for men) on a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*). The correlation between approach and avoidance goals was r = .30 (p < .01) for women and r = .36 (p < .01) for men, which is in line with previous studies (Elliot et al., 2006; Impett et al., 2010).

Stress level was assessed with the 9-item Multi-Dimensional Stress Questionnaire for Couples (MDS-P; Bodenmann, Schär, & Gmelch, 2008) that assesses partners' level of stress in different relationship-related domains (e.g., conflict, different values, difficult personality and/or behavior of the partner) and external domains (e.g., job, children, finances, free time)

individually. All items were measured twice on a 4-point scale (1 = *not at all* to 4 = *very*); once for the last seven days indicating acute stress and once for the last twelve months indicating chronic stress. For this study, we focused on relationship-related acute stress (M = 1.67, SD = 0.54, α = .84 for women, and M = 1.58, SD = 0.47, α = .83 for men).[5]

Dyadic coping was measured with the Dyadic Coping Inventory (DCI; Bodenmann, 2008) which assesses different forms of dyadic coping such as positive and negative dyadic coping of the self and the evaluation of the partner ("What do I do when my partner is stressed?" and "What does my partner do when I am stressed?"), common dyadic coping ("What do we do when we are stressed as a couple?"), and satisfaction with coping strategies within one's own relationship. All items are answered on a 5-point scale from 1 = *almost never* to 5 = *very often*. For the present study, we focused on general dyadic coping. As such, positive and negative dyadic coping (reverse coded) were combined into a total score with higher scores indicating higher quality of dyadic coping (dyadic coping of the self: M = 3.92, SD = 0.46, α = .73 for women, and M = 3.93, SD = 0.45, α = .76 for men), and higher quality of dyadic coping of the partner (M = 3.78, SD = 0.67, α = .86 for women, and M = 3.90, SD = 0.53, α = .82 for men). All subscales showed a good reliability with α between .73, and .86 (see Table 4). An additional subscale of the DCI focuses on stress communication of the self (4 items; e.g., "I tell my partner when I'm stressed and need his emotional support"; M = 3.68, SD = 0.74, α = .79 for women, and M = 3.06, SD = 0.76, α = .75 for men) and the partner (e.g., "He/she tells me when he/she is

[5] Because research on goal orientation has yet to demonstrate its long-term impact on relationship quality, and because of the correlational structure of the data, we focused on acute relationship-related stress. However, the chronic relationship-related stress model was also tested and showed a good fit; $\chi^2(4) = 2.536$, p = .638, CFI = 1.000, RMSEA = .000. The prediction of relationship-related stress level by goal orientation (approach and avoidance) accounted for 4% of women's and 5% of men's variance in relationship-related chronic stress (M = 1.87, SD = 0.53, α = .83 for women, and M = 1.76, SD = 0.47, α = .81 for men). Compared with the reported model, the direction and size of all effects were virtually the same.

stressed and needs my emotional support"; M = 2.92, SD = 0.86, α = .81 for women, and M = 3.54, SD = 0.74, α = .75 for men). All subscales showed a good reliability with α between .75, and .81 (see Table 4).

Descriptive statistics of the model variables (approach relationship goals, avoidance relationship goals, stress level, stress communication, and dyadic coping) and comparisons of women's and men's key variables can be found in Table 4. All in all, the couples that participated in our study reported rather high dyadic coping of the self and the partner. Approach goals were related to reported stress level, stress communication and dyadic coping in men as well as in women. Avoidance goals were unrelated to reported stress level, stress communication, and dyadic coping in men, but were related to women's self-reported stress communication and partner-reported dyadic coping. Women reported significantly more approach relationship goals and less avoidance relationship goals than men. Women, compared to men, also reported higher levels of acute relationship-related stress, higher levels of stress communication of the self and significantly lower levels of stress communication in their partners. Men reported significantly higher levels of dyadic coping in their female partners than women reported about their male partners.

Table 4

Descriptive statistics, correlations, and t-tests for women's and men's study variables

	Women		Men		Difference (women - men)	Correlations						
	M (SD)	α	*M (SD)*	α	$t_{df=364}$ *(d)*	1	2	3	4a	4b	5a	5b
1 Approach goals	6.07 (0.84)	.73	5.88 (0.85)	.75	3.31** (.23)	.15**	.30**	-.11*	.16**	.09^{+}	.26**	.19**
2 Avoidance goals	4.89 (1.47)	.76	5.06 (1.32)	.73	-1.98* (.12)	*.36***	.30**	.16**	-.14**	.03	-.02	-.13*
3 Stress	1.67 (0.54)	.84	1.58 (0.47)	.83	3.25** (.18)	*-.17***	*.00*	.47**	-.17**	-.14**	-.33**	-.55**
Stress communication												
4a self-reported	3.68 (0.74)	.79	3.06 (0.76)	.75	11.44*** (.83)	*.10*$^{+}$	*-.07*	*-.08*	.07	.22**	.37**	.42**
4b partner-reported	2.92 (0.86)	.81	3.54 (0.74)	.75	-10.72*** (.77)	*.15***	*.09*$^{+}$	*-.11**	*.22***	.06	.36**	.33**
Dyadic coping												
5a self-reported	3.92 (0.46)	.73	3.93 (0.45)	.76	-0.54 (.02)	*.34***	*.07*	*-.43***	*.26***	*.29***	.30**	.54**
5b partner-reported	3.78 (0.67)	.86	3.90 (0.53)	.82	-3.53*** (.20)	*.27***	*.01*	*-.58***	*.26***	*.22***	*.61***	.38**

Note: *M* = mean, *SD* = standard deviation, *df* = degrees of freedom, *d* = Cohen's *d.* Correlation coefficients for women are above (shaded), for men below the diagonal (in italics), and between women and men along the diagonal. $^{+}$ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Data Analysis Plan

In the current study, we assessed both members of each romantic couple to examine the effects of relationship goals on stress, stress communication and dyadic coping. The actor-partner interdependence model (APIM; Kenny et al., 2006) was used to assess the contribution of both partners' relationship goals. The APIM allows for the estimation of both the effect that a person's predictor variable has on his/her own criterion variable (known as actor effect; depicted a_{A1}, a_{A2}, b_{A1}, and b_{A2} in Figure 4) and the effect that a person's predictor variable has on the partners' criterion variable (known as partner effect; a_{P1}, a_{P2}, b_{P1}, and b_{P2} in Figure 4). The APIM

treats the dyad rather than the individual as the unit of analysis, and controls for the fact that data from two members of a couple are not independent, e.g., the data from one partner are not independent of the data from the other partner (Kenny et al., 2006). Thus, actor and partner effects as well as the correlations between variables that are dependent on each other are estimated simultaneously in one model, controlling for each other and the dependency in the data.

As shown in Figure 4, all models involve simultaneous testing of four initial (independent) variables; his and her approach and avoidance relationship goals, and two outcome variables (different aspects of relationship quality, each for both partners). The effects of the relationship goals on the outcome variables thus not only control for the interdependence between partners but also for the effects of the other goal orientation. Because there are no clear-cut predictions concerning gender effects within the existing literature, we tested restrictive models, in which path coefficients between the two partners of a dyad were treated as equal (e.g., a_{A1} is equal to a_{A2}; see Figure 4).[6]

[6] Although no hypotheses were formulated with respect to gender or age group differences in model parameters, we explored these in supplementary analyses. No relevant differences could be found between model parameters as a function of gender. Compared with the reported model, only small differences up to .05 in unstandardized path coefficients occurred. The direction and size of the parameter was virtually the same across gender.
Before controlling for age, couples were divided in three age groups: The youngest couples ranged from 20 to 35 years (N = 122), middle-aged couples ranged from 40 to 55 years (N = 125), and oldest couples ranged from 65 to 80 years (N = 121). Multi group analyses revealed no significant group difference in four of the five models. We found one difference in model path coefficients for the model analyzing partner's stress communication. In this model, the partner effect of avoidance on stress communication is positive and statistically significant in Cohort 1 and 2 and is negative but not significant in Cohort 3. In the other four models, direction and size of the parameter was virtually the same across age group.

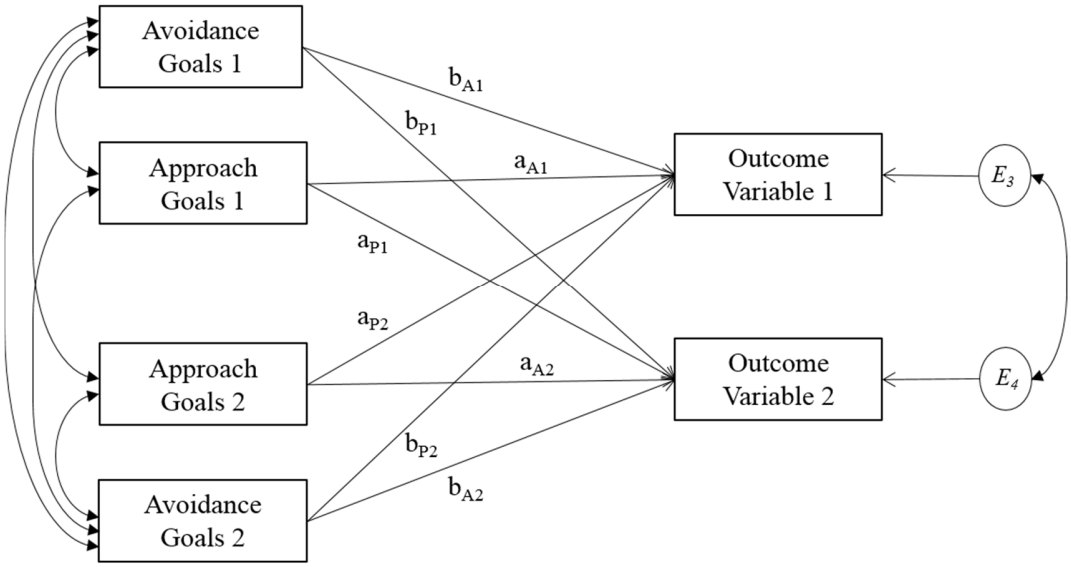

Figure 4. Actor-Partner Interdependence Model (Kenny, Kashy, & Cook, 2006) depicting approach-avoidance goals and different outcome variables (stress, self-reported and partner-reported stress communication, and self-reported and partner-reported stress dyadic coping). Path coefficients are set equal between partners (e.g., $a_{A1} = a_{A2}$).

Results

Stress level. We tested one model concerning acute relationship-related stress. The acute stress model showed an acceptable fit regarding the χ^2 and a good fit for additional model indices, $\chi^2(4) = 9.316$, $p = .054$, CFI = .979, RMSEA = .060. The prediction of relationship-related stress level by goal orientation (approach and avoidance) accounted for 5% of women's and 6% of men's variance in acute stress. All effect estimates are presented in Table 5. The actor and partner effects from approach goals to acute stress level (a_{A1}, a_{A2}, a_{P1}, and a_{P2}; see Figure 4) were negative and statistically significant, and the actor effect from avoidance goals to relationship-related stress (b_{A1} and b_{A2}) was positive and statistically significant. The partner effect from avoidance goals to stress (b_{P1} and b_{P2}) was not significant. In sum, the more

approach-oriented spouses were, the less relationship-related acute stress they reported, and the less stress their partners reported. On the other hand, the more avoidance-oriented spouses were, the more relationship-related stress they reported.

Stress communication. Two models concerning stress communication were tested. The first model tested the association between goal orientation and self-reported stress communication and the second model tested the association between goal orientation and the partner-reported stress communication. Both models showed a good fit; $\chi^2(4) = 1.683$, $p = .794$, CFI = 1.000, RMSEA = .000 for the self-reported and $\chi^2(4) = 3.453$, $p = .485$, CFI = 1.000, RMSEA = .000 for partner-reported stress communication. The prediction of stress communication by goal orientation accounted for 5% of women's and 4% of men's variance in the self-reported model and accounted for 5% of variance in women's and 3% in men's variance in the partner-reported model. Effect estimates are presented in Table 5.

In the self-reported stress communication model, the actor effect from approach goals to self-reported stress communication (a_{A1} and a_{A2}) was positive and statistically significant, and the actor effect from avoidance goals to stress communication (b_{A1} and b_{A2}) was negative and statistically significant. The partner effects were not significant (a_{P1}, a_{P2}, b_{P1}, and b_{P2}). In other words, the more approach-oriented spouses were the more likely they were to communicate their stress to their partners and the more avoidance-oriented spouses were the less they shared perceived stress with their partners.

In the partner-reported stress communication model, the actor and partner effects from approach goals to partner-reported stress communication (a_{A1}, a_{A2}, a_{P1}, and a_{P2}) were positive and statistically significant and the partner effect from avoidance goals to partner-reported stress communication (b_{P1} and b_{P2}) was negative and statistically significant. Unexpectedly, the actor

effect of avoidance goals to partner-reported stress communication (b_{A1} and b_{A2}) was positive and marginally significant (p = .052). In sum, the more approach-oriented spouses were, the more they considered their partners as communicative regarding the experienced stress, and the better evaluations of stress communication they received from their partners. On the other hand, the more avoidance-oriented spouses were, the poorer evaluations of stress communication they received from their partners. Unexpectedly, the more avoidance-oriented spouses were, the more they considered their partners as inclined to express experienced stress.

Dyadic coping. Two models concerning dyadic coping were tested. The first model tested the association between goal orientation and self-reported dyadic coping and the second model tested the association between goal orientation and the partner-reported dyadic coping. Both models showed a good fit; $\chi^2(4) = 2.095$, p = .718, CFI = 1.000, RMSEA = .000 for the self-reported and $\chi^2(4) = 5.582$, p = .233, CFI = .994, RMSEA = .033 for partner-reported dyadic coping. The prediction of dyadic coping by goal orientation accounted for 11% of women's and 12% of men's variance in the self-reported model and accounted for 9% of women's and 14% of men's variance in the partner-reported model. Effect estimates are presented in Table 5.

In the self-reported dyadic coping model, the actor and partner effects from approach goals to self-reported dyadic coping (a_{A1}, a_{A2}, a_{P1}, and a_{P2}) were positive and statistically significant, and the partner effect from avoidance goals to self-reported dyadic coping (b_{P1} and b_{P2}) was negative and statistically significant. The actor effect of avoidance goals (b_{A1} and b_{A2}) was not significant. In other words, the higher approach-oriented spouses were, the more they provided dyadic coping to their partners. Additionally, partners of approach-oriented spouses also report providing more dyadic coping, and partners of avoidance-oriented spouses report providing less dyadic coping.

Table 5

Effect estimates for the Actor-Partner Interdependence Models

Model	*Estimate*	*SE*	*p*	*Stand. Estimate*[i] *women / men*	CI_{95} *lower / upper*
Self-reported acute stress model					
Approach					
Actor effect (a_{A1}; a_{A2})	-.10	.02	<.001	-.15 / -.17	-.05 / -.14
Partner effect (a_{P1}; a_{P2})	-.09	.02	<.001	-.15 / -.16	-.05 / -.14
Avoidance					
Actor effect (b_{A1}; b_{A2})	.04	.01	.002	.12 / .12	.01 / .07
Partner effect (b_{P1}; b_{P2})	.02	.01	.124	.06 / .05	-.01 / .05
R_{Women}^2 / R_{Men}^2	.05 / .06				
Self-reported stress communication model					
Approach					
Actor effect (a_{A1}; a_{A2})	.16	.03	<.001	.18 / .17	.09 / .22
Partner effect (a_{P1}; a_{P2})	.05	.03	.162	.06 / .05	-.02 / .11
Avoidance					
Actor effect (b_{A1}; b_{A2})	-.09	.02	<.001	-.18 / -.15	-.04 / -.13
Partner effect (b_{P1}; b_{P2})	-.01	.02	.697	-.02 / -.02	-.05 / .04
R_{Women}^2 / R_{Men}^2	.05 / .04				
Partner-reported stress communication model					
Approach					
Actor effect (a_{A1}; a_{A2})	.07	.04	.049	.18 / .17	-.00 / .14
Partner effect (a_{P1}; a_{P2})	.14	.04	<.001	.06 / .05	.06 / .21
Avoidance					
Actor effect (b_{A1}; b_{A2})	.05	.02	.052	.07 / .08	-.00 / .09
Partner effect (b_{P1}; b_{P2})	-.09	.02	<.001	-.13 / -.17	-.04 / -.13
R_{Women}^2 / R_{Men}^2	.05 / .03				
Self-reported dyadic coping model					
Approach					
Actor effect (a_{A1}; a_{A2})	.16	.02	<.001	.29 / .31	.12 / .20
Partner effect (a_{P1}; a_{P2})	.08	.02	<.001	.14 / .15	.04 / .12
Avoidance					
Actor effect (b_{A1}; b_{A2})	-.02	.01	.174	-.05 / -.05	.01 / -.04
Partner effect (b_{P1}; b_{P2})	-.03	.01	.026	-.08 / -.09	-.00 / -.05
R_{Women}^2 / R_{Men}^2	.11 / .12				
Partner-reported dyadic coping model					
Approach					
Actor effect (a_{A1}; a_{A2})	.17	.03	<.001	.21 / .27	.12 / .22
Partner effect (a_{P1}; a_{P2})	.15	.03	<.001	.20 / .24	.10 / .20
Avoidance					
Actor effect (b_{A1}; b_{A2})	-.05	.02	.003	-.11 / -.12	-.02 / -.08
Partner effect (b_{P1}; b_{P2})	-.04	.02	.011	-.08 / -.11	-.01 / -.07
R_{Women}^2 / R_{Men}^2	.09 / .14				

Note: R^2 = variance explained; *SE* = standard error; *p* = level of significance; [i] = standardized estimates differ for female and male partners since unstandardized path coefficients have been set equal to each other but not variances and residual variances; CI_{95} = 95% confidence interval

In the partner-reported dyadic coping model, the actor and partner effects from approach goals to partner-reported dyadic coping (a_{A1}, a_{A2}, a_{P1}, and a_{P2}) were positive and statistically significant, whereas the actor and partner effects from avoidance goals to partner-reported dyadic coping (b_{A1}, b_{A2}, b_{P1}, and b_{P2}) were negative and statistically significant. That is, the higher approach-oriented spouses were, the more they considered their partners as supportive and the better evaluations of dyadic coping they received from their partners. Additionally, the higher avoidance-oriented spouses were, the less they perceived their partner as supportive and the poorer evaluations of dyadic coping they received from their partners.

Discussion

The approach-avoidance distinction has emerged as a valuable vantage point for understanding relationship functioning. Building upon previous studies showing a relation between goal orientation and relationship satisfaction or communication quality in couples (Gable & Impett, 2012; Impett et al., 2010; Kuster et al., submitted), the present study examined the relation between goal orientation and different aspects of relationship functioning, including the experience of relationship-related stress, stress communication, and dyadic coping. Generally, it has been demonstrated that approach and avoidance goal orientation, as a cognitive representation of a desired or undesired end state, affect intraindividual cognitions. The present study is based on the assumption that these cognitions will be translated into interpersonal behavior that in turn affects the experience and quality of the interaction between partners. We assessed both members of romantic couples to account for the interdependent nature of relationship processes and examined the actor and partner effects of approach and avoidance relationship goals on these aspects. For stress communication and dyadic coping, self-reports as

well as partner-reports of both partners were included in the analyses. We expected that approach orientation supports relationship functioning on a perceptive and behavioral level, while avoidance orientation impairs relationship functioning on a perceptive as well as on a behavioral level. This assumption found support in all of the tested models.

Approach-Avoidance Orientation and Relationship-Related Stress

The present study examined whether the extent of experienced stress is associated with goal orientation. Our findings indicate that the more avoidance-oriented spouses are, the more relationship-related stress they experience, whereas the more approach-oriented spouses are, the less relationship-related stress they experience. This may be explained by the different regulation strategies of avoidance versus approach orientation. Avoidance-oriented individuals focus on negative outcomes or events, which is likely to elicit and sustain threat appraisals and worry (Elliot & Church, 1997; Elliot & McGregor, 1999; Elliot & Sheldon, 1997), whereas approach-oriented individuals focus on rewarding aspects and, for example, weigh positive information and feelings regarding their relationship more heavily (Gable & Poore, 2008; Gable et al., 2000; Updegraff et al., 2004). Additionally, partners of more approach-oriented spouses experience less stress. It seems that approach-orientation has a buffering effect on the stress experience of the partner. The stress measured in this study may be especially prone to be buffered through the partner because we focused on relationship-related stress. It is likely that some of the stress areas are stressors for both partners: If one spouse considers jealousy as a problem in the relationship, jealousy will be a problem for the other partner, too. We have seen that approach-oriented spouses weigh positive aspects of their relationship more heavily. The jealousy of the partner might be a stressor for them, but does not outweigh other more positive properties of the partner

or the relationship. The reaction of an approach-oriented spouse to a stressor might therefore prevent a negative spiral of mutual stress.

Approach-Avoidance Orientation and the Communication of Stress

Stress communication, as a form of self-disclosure, is an important aspect of communication in close relationships and serves as a means for the development and maintenance of feelings of intimacy and closeness (Bodenmann, 2005; Derlega et al., 1993; Sprecher & Hendrick, 2004). Stress communication of the self as well as of the partner might be perceived as beneficial to the relationship by approach-oriented spouses. At the same time, stress communication also contains the possibility of embarrassment and being neglected or judged by the partner (Fisher et al., 1988; Harris et al., 1999). Avoidance-oriented individuals have been shown to be reluctant to ask for help or assistance (Middleton & Midgley, 1997). From an avoidance-oriented spouse's view, stress communication of the self as well as of the partner might be perceived as a threat to the self and to the relationship.

Our findings support these assumptions: The more approach-oriented spouses are, the more they communicate their stress to their partner, the more they perceive their partner as disclosing, and the better evaluations of stress communication they receive from their partner. This behavior might promote relationship satisfaction because it enhances feelings of intimacy and closeness. On the other hand, the more avoidance-oriented spouses are, the less they disclose stress to their partner and the poorer evaluations of stress communication they receive from the partner. Interestingly, the more avoidance-oriented spouses are, the *more* disclosing they perceive their partner. This discrepancy in communication pattern between partners might be one explanation why avoidance orientation impairs relationship satisfaction (see e.g., Impett et al., 2010).

Avoidance-oriented spouses withhold their stress and are reluctant to ask for help when difficulties arise, while they, at the same time, feel burdened by their partner. This might lead to a general feeling of inequality, which can lead to higher negativity towards the partner and less relationship satisfaction (Utne, Hatfield, Traupmann, & Greenberger, 1984; Walster, Walster, & Berscheid, 1978).

Approach-Avoidance Orientation and Dyadic Coping

For approach-oriented spouses, providing or being asked to provide dyadic coping might be perceived as beneficial to the relationship. Our findings support this assumption: The more approach-oriented spouses are the more they provide dyadic coping to the partner, the more they perceive their partner as supportive, and the better evaluations of dyadic coping they receive from the partner. Even the partners of approach-oriented spouses perceive themselves as more supportive, regardless of their own goal orientation. Avoidance-oriented spouses, on the other hand, perceive their partner as less supportive and receive poorer evaluations of dyadic coping from their partner. Additionally, the partners of avoidance-oriented spouses consider themselves as less supportive, regardless of their own goal orientation.

The explanations for these findings are less obvious and might be diverse. First, dyadic coping can also be seen as a skill-based behavior, and couple programs teach spouses in these specific coping skills (see e.g., Bodenmann & Shantinath, 2004). Regarding goal orientation, it has been demonstrated that approach-oriented individuals focus more strongly on the attainment and development of competence, whereas avoidance-oriented individuals focus on avoiding the demonstration of inferior ability and incompetence (Elliot & Church, 1997; Elliot & McGregor, 1999). It might thus be that avoidance-oriented spouses do not consider themselves as competent

enough to handle situations in which they have to assist or provide emotional support to their partners and therefore are more careful in providing dyadic coping. Second, it has been shown that the focus on negative possibilities in avoidance goals leads to aversive psychological processes, including distracting thoughts, experiencing anxiety, or feeling compelled to escape from the goal-relevant situation, and that these processes consume resources (Derryberry & Reed, 2002; Elliot & McGregor, 1999; Oertig et al., 2013). This might lead either to a lack of resources available for dyadic coping, or a lack of resources to recognize situations which demand the provision of support.

To sum up, approach-oriented spouses experience less relationship-related stress, communicate their stress and negative feelings more often to their partner, provide more dyadic coping, and perceive their partner as more disclosing and more supportive. They also receive better evaluations from their partners regarding their stress communication and their dyadic coping behaviors. Moreover, the partners of approach-oriented spouses experience less relationship-related stress and provide more dyadic coping to their spouses. All of these aspects of relationship quality have been shown to be crucial for relationship functioning and the enhancement and maintenance of healthy and stable relationships. Avoidance-oriented spouses, on the other hand, experience more relationship-related stress, communicate their stress and negative feelings less often to their partners, and perceive their partner as less supportive. They also receive poorer evaluations from their partners regarding stress communication and dyadic coping behaviors. These aspects of relationship quality may already impair relationship quality and, eventually, relationship satisfaction.

Our data also showed two discrepancies that may further enhance negativity within close relationships: First, avoidance-oriented spouses communicate less stress to their partner, but

perceive their partner as more disclosing. Second, avoidance-oriented spouses receive less dyadic coping from their partners even though they do not provide less dyadic coping. These discrepancies in perception between the self and the partner may lead to feelings of inequality (Utne et al., 1984; Walster et al., 1978). For example, the avoidance-oriented spouse may withhold stressful events or feelings for the sake of not endangering the stability of the relationship, but at the same time is focusing on specific information communicated by the partner that could endanger the relationship. Furthermore, to help somebody who did not confide any problems and did not ask for help is more difficult and can even be interpreted as offensive (see e.g., styles of social control tactics used by spouses to increase health-enhancing behaviors in their partners; Lewis & Butterfield, 2007; Lewis & Rook, 1999), making it more unlikely that help will be offered in the future. Even the behavior of skilled partners might be experienced by a stressed spouse as intrusive and counterproductive, and unskilled partners' comforting behavior might even exacerbate rather than reduce frustration and anger (Bodenmann, Meuwly, Bradbury, Gmelch, & Ledermann, 2010). We conclude that stress and ability are one explanation for unsuccessful communication and dyadic coping, and that motivational orientation might impair these interactional processes.

Limitations and Future Directions

The following limitations should be kept in mind when interpreting our findings. The results are based on cross-sectional data, which, of course, do not allow any conclusion regarding causal inferences. Even though we treated goal orientation as a predictor variable, it might also be possible that relationship goal orientation is the consequence of bad relationship quality or lack of communication or coping skills: In long-term relationships, expectations of partner's behavior

may lead to the adoption of approach or avoidance goals. For example, if one member of the couple does not share stressful experiences with the partner, that partner might adopt an avoidance attitude (avoidance-oriented cognitions and goals) in order to protect the self or the relationship. Longitudinal data will provide more insights into the dynamics working in relationships. Moreover, even though we discuss our findings as involving interpersonal behavior, the data analysed in this study were based on self-reports and partner-reports. To strengthen our supposition, further studies are needed that include observational data.

Our large study sample provides a broad variety in relationship duration and age. These characteristics extend the existing literature in an important way because to date most studies on approach/avoidance goals in close relationships have been conducted with either student samples or rather young participants (e.g., Impett et al., 2010). But despite the diversity of our sample, couples were relatively homogenous with respect to most of our variables. Especially for dyadic coping and experienced stress, the variance is far more restricted than we would expect it in the population. On the other hand, restricted variance could also lead to a more conservative testing, i.e., it is more difficult to obtain significant results, which again might bolster our findings. Nonetheless, higher diversity within data would be desirable for a validation of our findings. Future research should further examine relevant aspects for relationship functioning such as sexual activity or commitment, and inclusion of observational and longitudinal data would likely expand our knowledge about the influence of goal orientation on behavioral processes in intimate relationships.

Conclusion

Elliot and Sheldon (1998; p.1294) describe personal goals as "vehicles through which individuals negotiate their daily lives, and … that some vehicles are better suited for the terrain of everyday life (approach goals) than others (avoidance goals)." This might also account for the goals within a romantic relationship. The present study provides further evidence that goal orientation is translated not only into cognitions and perception but also into behavior. Notwithstanding its limitations, the research reported here demonstrates that approach and avoidance relationship goals are related to the way partners experience relationship-related stress, communicate their stress to their partner and provide respectively receive dyadic coping: Approach-orientation reduces the experience of relationship-related stress, and endorses stress communication and dyadic coping between partners. This supports our assumption that approach orientation promotes high relationship quality and enables a stable relationship. Avoidance-orientation on the other hand, increases the experience of relationship-related stress, and impairs relationship functioning. By integrating the concept of goal orientation into the research of relationship functioning, this study has provided some interesting evidence that may lead to a better understanding of how relationships work.

Part III

Doom Loop of Negative Communication in Avoidance-Oriented Spouses

Monika Kuster[1], Katharina Bernecker[1], Sabine Backes[1], Veronika Brandstätter[1], Fridtjof W. Nussbeck[2], Thomas N. Bradbury[3], Mike Martin[1], Dorothee Sutter-Stickel[1], and Guy Bodenmann[1]

[1]University of Zurich, Switzerland

[2]University of Bielefeld, Germany

[3]University of California, Los Angeles, USA

A similar version of this article has been submitted to be reviewed for publication.

Abstract

Avoidance relationship goals describe an individual orientation towards negative social outcomes such as conflict and rejection that elicit strong emotional and cognitive reactions in a negative social event. We hypothesized that this avoidance orientation in spouses promotes a doom loop of negative communication when couples engage in a conflict. We tested our hypotheses on a dyadic level with sequential analyses using videotaped, observational data (28'470 observations) from 365 heterosexual couples (M_{Age} = 48 years; Range = 20 - 80 years) engaging in a relationship-related conflict. Results showed that while less avoidance-oriented spouses showed a decline in their likelihood of negative communication over the course of an eight-minute conflict discussion, the likelihood of more avoidance-oriented spouses to display negative communication behaviors remained at a high level. A second set of analyses revealed that this was only true when avoidance-oriented spouses were confronted with negative communication behavior of their partners. Our research, therefore, contributes to the current literature regarding reactivity processes in avoidance-oriented spouses and extends this literature theoretically and methodologically. Limitations of the study and implications regarding relationship functioning are discussed.

Introduction

Although ineffective interactional processes between intimate partners have long been understood as skill deficits that foreshadow distress and dissolution in close relationships (Gottman, 1994; Karney & Bradbury, 1995), much less is known about the goal-directed motivational orientations that give rise to these behaviors. Building on work showing that motivational orientations, such as the tendency to approach or avoid negative experiences, affect whether couples cultivate satisfying and enduring relationships (Elliot et al., 2006; Gable & Impett, 2012), we propose that interpersonal communication can also be understood as a sequence of goal-directed behaviors that reflect spouses' underlying motivations. As avoidance-oriented individuals in particular react more strongly with negative affect in threatening situations (Derryberry & Reed, 1994; Gable, 2006), these spouses may be particularly likely to engage in, and perpetuate, reciprocated cycles of negativity and, in turn, experience adverse relationship outcomes. We use observational data on couple communication and sequential analyses with a large sample of couples to test this possibility, in an effort to clarify underlying sources of between-couple variability in relationship conflict.

Observation of Negative Communication in Couples

A long tradition of research on couples adopts the premise that relationship satisfaction is a consequence of the behaviors that partners exchange (Bodenmann & Cina, 2005; Cohan & Bradbury, 1997; Gottman, 1994; Karney & Bradbury, 1995), and observational research testing this premise demonstrates that behaviors displayed by spouses while discussing a relationship-specific problem are related to relationship satisfaction (for reviews, see Bradbury & Karney, 1993; Weiss & Heyman, 1990). Most of this research relies on the observation and coding of

behavior and verbal interaction during a standard conflict interaction that is recorded in the laboratory (e.g., Carrere & Gottman, 1999; Hahlweg & Richter, 2010; Heavey, Christensen, & Malamuth, 1995). According to Gottman (1994), for example, couples engage in different phases during a standard interaction task: The "start-up" phase of a discussion is agenda building in which both partners tend to present their views and feelings. The second phase is the arguing phase, followed by the negotiation phase in which couples may or may not work toward a compromise. Although couples express most negativity during the arguing phase, this phase is also characterized by couples' attempts to reconcile their competing views. These repair attempts (e.g., *"If you stopped to listen you would understand my point better!", "Actually, I am not sure I am the one who is at fault here!")* may be accompanied by some form of negative affect such as anger, disgust, sadness or tension. Satisfied couples appear to recognize mutual repair attempts and work to reduce negativity with information exchange, problem-solving, humor, and distraction. Dissatisfied couples, however, seem to focus primarily on the negative tone of the repair attempts, ending up in costly negative loops that are difficult to exit once entered. Although these patterns of interaction are largely understood as relatively malleable skill deficits, we propose that they may also reflect individual differences in partners' motivational orientations.

Approach-Avoidance Relationship Goals in Couples

Approach and avoidance orientation are commonly viewed as independent and distinct motivational systems (Atkinson, 1957; Carver et al., 2000; Higgins, 1997). Approach orientation promotes movement towards desired end states and avoidance orientation increases movement away from undesired end states (Elliot & Thrash, 2002; Gray, 1990). Approach and avoidance goals predict different social outcomes (Gable, 2006); while approach goals are associated with

outcomes defined by the presence of rewarding experiences (e.g., intimacy and closeness), avoidance goals are associated with outcomes defined by the presence of punishing experiences or threats (e.g., rejection and conflict). Recent work has applied this approach-avoidance distinction to relationship goals. Approach relationship goals are associated with higher relationship satisfaction and closeness on a daily basis and with an increase in relationship satisfaction over time (Gable & Poore, 2008; Impett et al., 2010). Avoidance goals, on the other hand, are associated with reduced relationship satisfaction, more feelings of loneliness, and greater relationship insecurity (Gable, 2006; Gable & Berkman, 2008; Gable & Poore, 2008), while also predicting a higher probability of separation (Impett, Peplau, et al., 2005).

But why have avoidance goals such detrimental effects on relationship outcomes? A stronger avoidance orientation is related with better memory for negative information (Strachman & Gable, 2006b), and while individuals higher in avoidance orientation weigh thoughts of security more heavily than those low in avoidance orientation, individuals higher in approach orientation weigh thoughts of passion more heavily compared to those low in approach orientation (Gable & Poore, 2008). Thus, avoidance orientation affects cognitive processes such as memory and interpretation of ambiguous information and affective cues; this heightened focus on negative outcomes or events, which is inherent in avoidance regulation, is in turn "likely to elicit and sustain threat appraisals, anxiety and self-protection processes, as the individual is incessantly reminded of aversive possibilities" (Elliot & Sheldon, 1998, p. 1283). Furthermore, different processes have been identified underlying the association of approach goals and social outcomes compared to avoidance goals and social outcomes (Gable, 2006; Gable et al., 2000). While approach orientation is associated with the *frequency* of social events, avoidance orientation is associated with the *quality* of social events. In other words, approach-oriented individuals are more likely to *initiate* social interactions as a means of creating the opportunity

for rewarding social situations. Avoidance-oriented individuals, on the other hand, are guided by a *reactivity process* which means they react more strongly to negative social events when they occur. When negative social events occur, individuals high in avoidance goals rate them as more important than those individuals low in avoidance goals and also react with more negative emotions (Elliot et al., 2006; Gable, 2006; Gable et al., 2000).

Avoidance Goals and Negative Communication

The present study merges these two lines of research by examining avoidance orientation in relation to negative communication behaviors in couples, under the assumption that patterns in couple communication will reflect partners' goal orientation toward each other and toward their relationship. To examine deficiencies in communication quality, we asked couples to engage in a standard interaction task that is known to elicit conflict and negativity between partners. As avoidance orientation (compared to approach orientation) plays an important role in instances of threat or the possibility of a negative social evaluations, we focused on individual levels of avoidance orientation in spouses and its effect on negative communication behavior during this conflict interaction. Prior work on avoidance motivation leads us to predict that (1) the more avoidance-oriented an individual is the more likely he or she will amplify negative communication over the course of the conflict interaction, and that (2) this tendency will be especially evident in instances when negative communication is displayed by the partner.

Although it may seem counterintuitive to predict that avoidance-oriented individuals will engage in *more* negative communication, it is important to recognize that avoidance regulation is "designed to facilitate surviving rather than thriving" (Elliot, Thrash, & Murayama, 2011, p. 666). Thus avoidance-oriented spouses may overuse avoidance strategies and engage in aversive, avoidance based regulation strategies. Moreover, research on attention, memory, and cognitive

control suggests that focusing on negative outcomes or events produces a perceptual sensitivity to negative stimuli and heightens accessibility of negative information (Derryberry & Reed, 1994; Higgins & Tykocinski, 1992; Wegner, 1994). Thus pursuing avoidance goals may increase the amount of negative feedback encountered, which in turn diminishes perceptions of acceptance and intimacy (Elliot et al., 2011). In other words, the environment of a highly avoidance-oriented individual mainly provides negative signals and information, and their attentional bias for threats makes it difficult to disengage from aversive stimuli (Fox, Russo, & Dutton, 2002; Gable & Berkman, 2008). These perceptions of rejection then elicit cognitive-affective overreactions including hurt and anger which, in turn, make the display of behavioral overreactions more likely. Consistent with this view, anxious expectations of rejection in men predict dating violence (Downey, Feldman, & Ayduk, 2000). Thus, opportunities to thrive are missed, and reciprocity mechanisms and concerns regarding rejection lead to negative reactions in order to reduce tension (Downey et al., 2000; Elliot et al., 2011; Heyman, 2001). Accordingly, when confronted with negative communication, we expect avoidance orientation to predict increasing displays of negative communication in response, leading to a reciprocated pattern of negative communication between partners over the course of a conflict interaction task.

Method

The present study is part of a larger research project on the impact of stress on relationship development of couples and children across the lifespan.

Procedure and Participants

The study was advertised in newspapers and on the radio as a study on the impact of stress on relationship development of couples. Interested couples were contacted by phone and

informed about the procedure of the study. If interested couples agreed to participate they were sent a first set of self-report measures. They were requested to complete the questionnaires independently from each other at home and take the questionnaires with them to the laboratory. At the laboratory, both partners had to agree to the informed consent and were then escorted to separate rooms where they filled in two sets of questionnaires. Then, the couples passed three videotaped interaction tasks: one standard conflict interaction task and two tasks of mutual support. For the purpose of this study, i.e., the examination of negative communication behaviors, data from the standard conflict interaction task will be used. Finally, both partners were again separated for the last set of questionnaires before they received a debriefing and 100 Swiss Francs (approximately $108). The procedure was evaluated and approved by the local ethics committee.

A total of 368 Swiss heterosexual couples participated in the study. To be eligible, couples had to be in their current relationship for at least one year. Three couples were removed from the analyses because of missing video data: One sequence was missing because of technical problems, one sequence had to be deleted after recording upon request of the couple, and one couple refused to get videotaped. Of the remaining couples, 241 couples were married (66.2%) and 236 couples had children (64.8%). Couples' age ranged from 20 to 80 years with a mean age of 47 years (SD = 18.40) for women and 49 years (SD = 18.20) for men. Mean relationship duration was 21 years (SD = 17.88; ranged from 1 year to 60 years). As for highest level of education completed, for women, 6% attended the mandatory school years (nine years), 40% completed vocational training, 21% completed high school, and 32% completed college or university. For men, 3% attended the mandatory school years (nine years), 35% completed vocational training, 12% completed high school, and 49% completed an academic degree. Couples reported a relatively high relationship satisfaction with M = 4.33 (SD = .50) for women,

and M = 4.38 (SD = .49) for men on the 5-point scale of the RAS (Relationship Assessment Scale; Hendrick, 1988; Sander & Böcker, 1993).

Measures

Avoidance orientation. Goal orientation was assessed with a measure of approach and avoidance romantic relationship goals (originally developed by Elliot et al., 2006; adapted for romantic relationships by Gable, 2006; Impett et al., 2008). Participants received the following instructions: "Within a relationship, different goals can be pursued. Please indicate for each goal to what extent you are trying to achieve this goal within the next year". Avoidance relationship orientation was assessed with four items, such as "I will be trying to avoid disagreements and conflicts with my romantic partner", or "I will be trying to stay away from situations that could harm my relationship" on a 7-point scale (1 = *not at all true* to 7 = *very true*). Men reported a marginally stronger avoidance orientation compared to women (M = 4.88, SD = 1.47, α = .76 for women, and M = 5.06, SD = 1.32, α = .73 for men; $t(365) = -1.95$, $p < .10$).

Communication behavior. For the standard conflict interaction task, both partners identified a source of tension in their relationship that they would like to discuss with each other. To help partners identify primary areas of couple immanent stress, a list of most common problem areas was used (PAQ A; Heavey et al., 1995). Respondents rated their degree of stress regarding areas within their relationship like communication with partner, sexuality, or disturbing habits of partner on a 4-point scale (1 = *undemanding* to 4 = *very demanding*). Additionally, participants were allowed to freely add additional areas of stress. The couple had to agree on one issue from the PAQ A that either caused the high tension for both partners, or caused high tension in one partner but not in the other partner. Participants were then asked to discuss this relationship-relevant issue for 8 minutes while being videotaped.

To code communication behavior that spouses displayed in this interaction, an adapted version of the SPAFF (Gottman, 1994) was used.[7] The interaction coding system consisted of different verbal categories regarding negative communication (e.g., *criticism, stonewalling, contempt*). Two research assistants were trained to rate communication behavior. Each rater had to practice coding process on video-taped couple interactions that were not part of this study for at least 60 hours. At the end of the training period, Cohen's kappa indicated that the raters had achieved an acceptable interobserver agreement (kappa = .90). Each interaction sequence was rated by the two raters simultaneously; one focusing on the man, the other focusing on the woman. Interactions were divided into 48 sequences, 10 sec each, to allow for the possibility that multiple categories could occur during the 8 min interaction. Each sequence was coded for the occurrence of any negative communication behavior with either *0 = no negative communication occurred,* or *1 = negative communication occurred* (probability of negative communication ranged from .00 to .85 with M = .10, SD =.13). Men and women did not differ in the general level of negative communication behavior over the 8 min interaction (M = .10, SD = .12 for women; M = .10, SD = .13 for men; $t(363) = .99$, $p = .33$). According to Gottman (1994), most couples express most negative affect during the arguing phase of the conflict interaction. Therefore, we treated the first 90 seconds (9 sequences) of the interaction as start-up phase and included the remaining 6.5 min (39 sequences) in the analyses.

Data Structure and Preliminary Analyses

The dataset consisted of 365 (couples) x 2 (persons) x 39 (sequences) = 28'470

[7] Manuals and more detailed information about the interaction coding systems are available from the Department of Psychology - Clinical Psychology for Children/Adolescents, and Couples/Families, University of Zurich, Switzerland, Prof. Guy Bodenmann guy.bodenmann@psychologie.uzh.ch.

observations. Although, conceptually there are three levels within our data (sequences nested within persons nested within couples), new approaches suggest that longitudinal data from distinguishable dyads should be modelled with two levels of analysis (for further details see Bolger & Laurenceau, 2013). Thus level 1 represents variability due to within-person repeated measures and level 2 represents between-dyad variability (see Laurenceau & Bolger, 2005; Raudenbush, Brennan, & Barnett, 1995b, for more details). One consequence of that approach is that one has to test for gender and gender-specific effects using dummy coded gender variables in conjoint multilevel models (Kenny et al., 2006). We followed a two-step procedure in our analyses: First, we used a double entry method to detect potentially differing effects for female and male spouses, and second, we tested whether effects for men and women differed significantly in a conjoint model using a single entry method but adding interaction effects (e.g., interactions with dummy coded gender variable). We applied this two-step procedure to the unconditional model, testing Hypothesis 1, as well as to the conditional model, testing Hypothesis 2. This approach is based on comparing unconditional probabilities (the chance that a certain behavior occurs at all) with the conditional probabilities (the chance that a certain behavior occurs, given partner's behavior occurs)

Our primary dependent variable was negative communication of the spouse within a specific sequence, which was coded as a binary variable (0 = no negative communication, 1 = negative communication). Therefore, we used generalized mixed linear model with a logit link function. In this model, the probability to show negative communication behavior within a sequence can be determined by (for further details see also Tabachnick & Fidell, 2014):

$$P(Y = 1) = \frac{e^{(\beta_0 + \beta_1 X_1 \ldots + \beta_n X_n)}}{1 - e^{(\beta_0 + \beta_1 X_1 \ldots + \beta_n X_n)}} \quad (1.0)$$

When $\beta_n < 0$, the coefficient indicates a decrease in the odds (probability) of showing a negative communication behavior for an increase in the associated predictor (X_n); for $\beta_n > 0$ an increase in the predictor signifies an increase in the odds (probability) to show negative communication behavior.

Before running the analyses, we treated the predictor variables as follows: Sequences were centered at the first sequence such that it ranged from 0 to 38 (Time). Avoidance motivation was grand-mean centered (AVmc) by subtracting the mean of avoidance motivation across all participants (*M* = 4.97, *SD* = 1.40, Range: 1.00 - 7.00) from each participant's raw score. The partner's negative communication was a binary predictor (NPC, 0 = no negative partner communication; 1 = negative partner communication) for which no further centering is needed (Hoffman & Stawski, 2009). However, because we were interested in the pure within-dyad effect of negative partner communication, we created a second variable that represents the between-dyad variation in negative partner communication that served as control variable in the final model. To do this, we calculated the average negative communication across all sequences for each person and then subtracted the grand-mean of negative communication (*M* = 0.10, *SD* = 0.13, Range: 0.00 - 0.85). The resulting grand mean-centered score captures the deviance of each person from the average person in negative communication (NPCmc). The models were estimated in R (version 3.0.1; R Core Team, 2013) using the lme4 package (Bates, Maechler, Bolker, & Walker, 2013).

Hypothesis 1: Testing the two-way interaction between time and avoidance motivation

In a first model, the *unconditional model*, we tested whether avoidance motivation predicted a loop of negative communication, such that individuals with higher avoidance motivation showed more negative communication over the course of the interaction than individuals with

lower avoidance motivation. That means that this model examines the effects unconditional of partner's negative communication. Therefore, the unconditional model examined the effect of time, avoidance motivation, and their interaction on the probability of negative communication within a specific sequence of the interaction.

Equation 1.1 and 1.2 represent the paired level-1 equations for male and female spouses, which are represented by an intercept and a slope for time, both of which are predicted by variables at level 2 (equations 1.3 through 1.6). At level 2 the intercept was predicted by spouse's avoidance motivation (γ_{01M} and γ_{01F}) and a random variance component (u_{0jM} and u_{0jF}; equation 1.3 and 1.4). Further, the effect of time was predicted at the upper level by the spouse's avoidance motivation (γ_{11M} and γ_{11F}). As avoidance motivation is a level-2 predictor and time a level-1 predictor, γ_{11M} and γ_{11F} represent so called cross-level interactions. These interactions capture whether negative communication unfolded differently over time depending on the avoidance motivation of the spouse. The estimate of this interaction should be significant for men and women, if our first hypothesis was correct.

$$ln(\frac{p}{1-p})M_{ij} = \beta_{0jM} + \beta_{1jM}(Time_{ij}) \quad (1.1)$$

$$ln(\frac{p}{1-p})F_{ij} = \beta_{0jF} + \beta_{1jF}(Time_{ij}) \quad (1.2)$$

$$\beta_{0jM} = \gamma_{00M} + \gamma_{01M}(\mathrm{AVmc}_{jM}) + u_{0jM} \quad (1.3)$$

$$\beta_{0jF} = \gamma_{00F} + \gamma_{01F}(\mathrm{AVmc}_{jF}) + u_{0jF} \quad (1.4)$$

$$\beta_{1jM} = \gamma_{10M} + \gamma_{11M}(\mathrm{AVmc}_{jM}) \quad (1.5)$$

$$\beta_{1jF} = \gamma_{10F} + \gamma_{11F}(\mathrm{AVmc}_{jF}) \quad (1.6)$$

The results of the unconditional model are summarized in Table 6. The intercept of the model represents the probability of a negative communication for men and women when all other variables in the model are zero (i.e., first sequence, average avoidance motivation).

Table 6

Results from Multilevel Models predicting negative communication behavior in distinguishable dyads

Fixed Effects		Model 1 Estimate (SE)	Model 2 Estimate (SE)
Intercept	Women	-2.700 (0.10) ***	-2.471 (0.10) ***
	Men	-3.171 (0.12) ***	-2.822 (0.12) ***
Time (within)	Women	-0.006 (0.00) *	-0.006 (0.00) *
	Men	-0.002 (0.00)	-0.003 (0.00)
Avoidance (between)	Women	-0.038 (0.06)	-0.050 (0.05)
	Men	-0.138 (0.07) +	-0.105 (0.06) +
Time*Avoidance	Women	0.006 (0.00) **	0.004 (0.00) *
	Men	0.003 (0.00)	0.001 (0.00)
Partner Communication (mean; between dyad)[i]	Women		6.755 (0.38) ***
	Men		9.661 (0.50) ***
Partner Communication (within dyad)	Women		0.306 (0.15) *
	Men		0.332 (0.16) *
Time*Partner Communication	Women		0.005 (0.01)
	Men		0.005 (0.01)
Avoidance*Partner Communication	Women		-0.228 (0.11) *
	Men		-0.147 (0.12)
Time*Avoidance*Partner Communication	Women		0.010 (0.01) +
	Men		0.011 (0.01) *
Intercept variance	Women	2.007 (1.42)	1.177 (1.09)
	Men	3.215 (1.79)	1.709 (1.31)
-2log likelihood		16043.749	15795.690
AIC		16065.749	15837.690
BIC		16156.790	16011.495

Note. SD = standard deviation, AIC = Akaike Information Criteria; BIC = Bayesian Information Criteria. [i] Estimates for mean centered partner communication is relatively big, because it accounts for 36 sequences. To get the real estimates, it has to be divided by 36. + p < .10, * p < .05, ** p < .01, *** p < .001.

Results showed that women were more likely to communicate negatively than men. The probability for negative communication during the first sequence for a person with average avoidance motivation was 7.2% for women and 4.3% for men. The effect of time was only significant for women, but not for men. The later the sequence the less likely women were to communicate negatively. Further, there was no main effect of avoidance motivation for women, but a marginal significant main effect for men. Overall, men seemed to communicate less negatively the more avoidance motivated they were. Most important for our hypothesis was the significant positive estimate for the interaction between time and avoidance motivation for women. The interaction was not significant for men, but the estimate was also positive and about the size of the women's estimate. The pattern of the interaction is displayed in Figure 5.

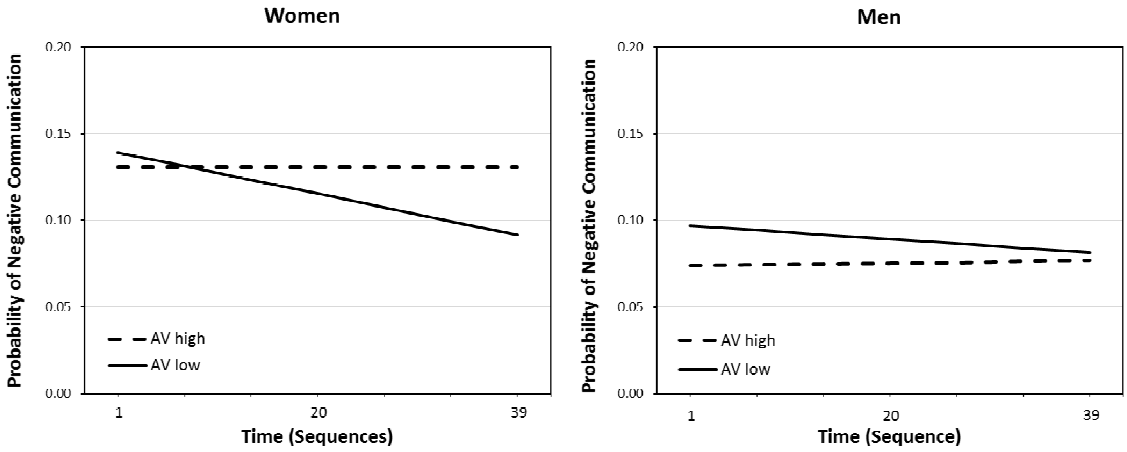

Figure 5. Interaction of time and avoidance orientation (AV) on the likelihood of spouses own negative communication behavior.

As predicted, for women low in avoidance motivation (-1 SD) the likelihood of negative communication decreased over time. Women with high avoidance motivation (+1 SD) did not show a decrease in negative communication but remained at the same level of negative communication throughout the interaction. For men, the pattern was located at a different level

because they already started out with less negative communication. The trends of the different lines for low and high avoidance motivation were still similar to those of women. For men low in avoidance motivation the likelihood of negative communication decreased over time, for men high in avoidance motivation the likelihood of negative communication did not show a decrease over the course of the interaction.

To test whether the two-way interaction differed significantly between genders, we additionally estimated a conjoint generalized linear model and tested for a three-way interaction between time, avoidance motivation (grand-mean centered), and an effect-coded gender variable (1 = men; -1 = women). The three-way interaction with gender was not significant, $b = -.001$, $se = .001, p = .293$, whereas the two-way interaction between time and avoidance motivation was highly significant, $b = .004, se = .001, p = .002$. This suggests, for women and men, there is an interaction between time and avoidance motivation and that there is no difference with respect to the interaction in the two-intercept model.

Hypothesis 2: Testing the three-way interaction between time, avoidance motivation, and partner's negative communication

In the conditional model, we tested whether the effect of time and avoidance motivation on the likelihood of negative communication was moderated by partner's negative communication. This hypothesis refers to a within-dyad process in which negative partner communication from one partner within a specific sequence affects the communication of the other partner within the same sequence. To test the pure within-dyad effects we needed to control for between-dyad differences in partner's negative communication at level-2 (Graber, Laurenceau, & Carver, 2011; see also Hoffman & Stawski, 2009).

Equations 2.0 and 2.1 represent the level-1 model predicting the likelihood of negative communication by the effect of time ($Time_{ij}$), the effect of negative communication of the partner within a specific sequence (NPC_{ij}) and their two-way interaction effect ($Time_{ij} * \mathrm{NPC}_{ij}$). Equations 2.2 through 2.9 represent the level-2 model. The average level-1 intercept corresponds to a gender-specific grand mean in negative communication (γ_{00M} and γ_{00F}); deviations from the grand mean are captured by the avoidance motivation of the individual (γ_{01M} and γ_{01F}), his or her partner's general tendency to communicate negatively (NPCmc; γ_{02M} and γ_{02F}) and a random variance component (u_{0jM} and u_{0jF}; see equations 2.2 and 2.3). The effect of time was predicted by the avoidance motivation of the person (γ_{02M} and γ_{02F}), which represents the same two-way interaction as examined in the unconditional model. Further, on level-2, differences in the effect of partner's negative communication within the sequence were predicted by the avoidance motivation of the individual (γ_{21M} and γ_{21F}), representing the cross-level two-way interaction between the effect of partner's negative communication within a sequence and the individual's avoidance motivation. Finally, differences in the two-way interaction between time and partner communication at level-1 were predicted the individual's avoidance motivation (γ_{31M} and γ_{31F}), which represents the three-way interaction between time, avoidance motivation and negative partner communication. If Hypothesis 2 is correct, this three-way interaction should be significant for men and women.[8]

[8] Because the model did not reach convergence with the Laplace approximation procedure the model was estimated with a faster but less exact form of parameter estimation for generalized linear multilevel models by optimizing the random effects and the fixed-effects coefficients in the penalized iteratively reweighted least squares step.

$$LN(\frac{p}{1-p})M_{ij} = \beta_{0jM} + \beta_{1jM}(Time_{ij}) + \beta_{2jM}(\mathrm{NPC}_{ij}) + \beta_{3jM}(Time_{ij} * \mathrm{NPC}_{ij}) \quad (2.0)$$

$$LN(\frac{p}{1-p})F_{ij} = \beta_{0jF} + \beta_{1jF}(Time_{ij}) + \beta_{2jF}(\mathrm{NPC}_{ij}) + \beta_{3jF}(Time_{ij} * \mathrm{NPC}_{ij}) \quad (2.1)$$

$$\beta_{0jM} = \gamma_{00M} + \gamma_{01}(\mathrm{AVmc}_{jM}) + \gamma_{02}(\mathrm{NPCmc}_{jM}) + u_{0jM} \quad (2.2)$$

$$\beta_{0jF} = \gamma_{00F} + \gamma_{01}(\mathrm{AVmc}_{jF}) + \gamma_{02}(\mathrm{NPCmc}_{jF}) + u_{0jF} \quad (2.3)$$

$$\beta_{1jM} = \gamma_{10M} + \gamma_{11}(\mathrm{AVmc}_{jM}) \quad (2.4)$$

$$\beta_{1jF} = \gamma_{10F} + \gamma_{11}(\mathrm{AVmc}_{jF}) \quad (2.5)$$

$$\beta_{2jM} = \gamma_{20M} + \gamma_{21}(\mathrm{AVmc}_{jM}) \quad (2.6)$$

$$\beta_{2jM} = \gamma_{20F} + \gamma_{21}(\mathrm{AVmc}_{jF}) \quad (2.7)$$

$$\beta_{3jM} = \gamma_{30M} + \gamma_{31}(\mathrm{AVmc}_{jM}) \quad (2.8)$$

$$\beta_{3jF} = \gamma_{30F} + \gamma_{31}(\mathrm{AVmc}_{jF}) \quad (2.9)$$

Results of the conditional model are also summarized in Table 6. There was a significant effect for the negative partner communication within the sequence for women and men. In sequences with negative communication by the partner, the spouse was more likely to communicate negatively as well. Because we controlled for the partner's general tendency to communicate negatively at level 2, this effect reflects an immediate reaction of the spouse to the partner's behavior. The three-way interaction between time, avoidance motivation, and partner's negative communication was marginally significant for men and significant for women. The pattern of the interaction is displayed in Figure 6.

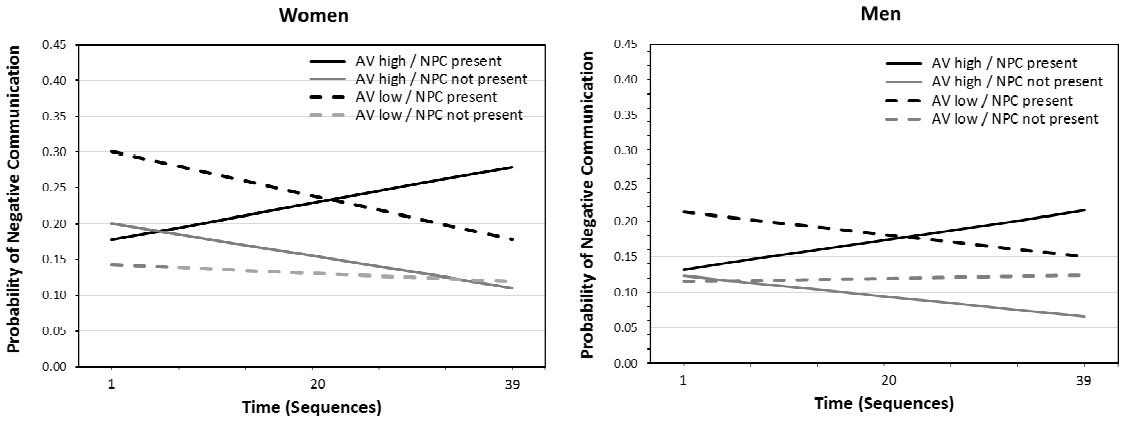

Figure 6. Interaction of time, avoidance orientation (AV) and negative partner communication (NPC) on the likelihood of spouses own negative communication behavior.

The pattern is almost identical for men and women. The likelihood of negative communication was higher in sequences in which the partner communicated negatively. But the effect of negative communication of the partner was affecting high avoidance-oriented spouses increasingly over time, while low avoidance-oriented spouses showed decreased negative communication over the course of the interaction despite negative communication from the partner. That is, as the conflict interaction goes on, individuals high in avoidance motivation react more and more strongly to negative communication behavior by their partners. Those who score low in avoidance motivation react strongly to negative behavior by their partners in the beginning but their tendency to show this reaction decreases over time. If there is no negative communication behavior displayed by the partner, the likelihood to show negative behavior for those scoring high in avoidance motivation decreases steadily over time. For those scoring low in

avoidance motivation the likelihood of negative communication remains relatively stable.[9]

To test whether the three-way interaction differed significantly between genders, a second conjoint generalized linear model was estimated testing for a four-way interaction between time, avoidance motivation (grand-mean centered), negative partner communication, and the effect coded gender variable (1 = men; -1 = women). However, the four-way interaction was not significant, $b = .002,\ se = .004, p = .663$, whereas the three-way interaction between time, avoidance motivation and negative partner communication was highly significant, $b = .009,\ se = .004, p = .020$. Hence, for women and for men, there is an interaction between time, avoidance motivation, and negative partner communication.

Discussion

The present study examined whether the probability of negative communication over the course of a conflict interaction amplifies depending on the avoidance orientation of spouses. The average probability for an individual's negative communication behavior is decreasing over time. According to Gottman (1998), an average couple shows most negativity in the arguing phase, followed by repair attempts and negotiation which evokes less negative communication. This, however, was not true for avoidance-oriented spouses. In the unconditional model, we found that highly avoidance-oriented individuals showed a rather stable probability to show negative behavior (see Figure 5). We further examined whether this effect depends on a reactivity process in the case of a negative social prompt, that is, when negative communication was displayed by

[9] Because negative communication and avoidance motivation might both reflect a global level of relationship satisfaction, we tested whether relationship satisfaction would influence the pattern of results. First, relationship satisfaction was significantly correlated with negative communication, $r_{women} = -.32$, $p < .01$, and $r_{men} = -.22$, $p < .01$, but was uncorrelated with avoidance orientation, $r_{women} = -.07$, and $r_{men} = -.03$. Second, we controlled for relationship satisfaction in our models. Neither in the unconditional nor the conditional model did controlling for relationship satisfaction change the pattern of results.

the partner. In accordance to the reciprocity literature, the probability for an individual's own negative communication behavior depends on the partner's general negativity as well as on partner's negative behavior in a particular sequence. Still, overall the probability to show a negative behavior decreased over time or remained rather stable (see Figure 6). This was not true for those individuals scoring high in avoidance orientation and being confronted with negative partner communication. In these individuals the likelihood of negative communication amplified over time as a reaction to an adverse event. In other words, avoidance-oriented spouses are more and more likely to communicate negatively when their partner also showed negative communication behavior. This suggests that avoidance-oriented spouses' negativity in communication escalates over time depending on the negative communication of their partner and no attempts of repairing the interaction takes place. This effect was demonstrated to be the same for men and women. The current contribution extends existing research on goal orientation by supporting the assumptions that communication behavior of avoidance-oriented spouses seems to be driven by a reactivity process. In other words, strong avoidance goals lead to strong negative cognitive and affective reactions in the case of a negative social incident, which in turn leads to a higher likelihood of negative interpersonal behaviors.

Early studies of marital problem solving generally compared the behavior of distressed and non-distressed couples while they discussed a current problem in a laboratory setting (see Weiss & Heyman, 1990, for a review). Such studies typically found that distressed couples were more likely than non-distressed couples to engage in negative behaviors and reciprocate negativity. If couples enter a conflict, they usually reach a certain level of negativity in their communication, accompanied by attempts to repair the interaction. Couples that fail to repair their communication seem to stay in an *absorbing state*, which is characterised by an attention toward negative affect components of the repair attempt (e.g., angry tone of a phrase; Gottman, 1998, p.

180). These mechanisms are especially characteristic of dissatisfied couples, whereas satisfied couples are able to use meta-communicative strategies to exit a negative state (e.g., distraction, humor, finding common ground) instead of focussing on the negative components of the conflict communication. The present study, however, provided first evidence that avoidance orientation in spouses also may predict this doom loop of negative communication. Our sample reported relatively high relationship satisfaction, and, therefore, these couples should generally be successful in exiting negative cycles of interaction. We demonstrated that even in relatively satisfied couples, avoidance-oriented spouses are prone to enact the same (or at least similar) negativity pattern as unhappy couples, accelerating and aggravating negative exchanges rather than exiting from them. The present work indicates that there may be value in understanding communication processes as a reflection of underlying motivational tendencies and, more specifically, implies that avoidance orientation in spouses might be a risk factor because it is translated into negative communication behavior that may lead to future relationship dissatisfaction.

Strengths, Limitations and Future Directions

The present study extends existing research regarding goal orientation in romantic relationship in several ways. First, the couples we sampled varied widely in relationship duration and age, extending beyond prior studies in this area that have relied on younger couples (e.g., Gable & Poore, 2008; Impett et al., 2010; Impett et al., 2008). Furthermore, research has mainly focused on examining cognitive and affective aspects related to relationship satisfaction (e.g., information processing, memory, experience of positive affect), and even though relationship research has demonstrated the importance of observational data (Gottman, 1994), to date only few studies on goal orientation in couples have included observational data (Impett, Gere,

Kogan, Gordon, & Keltner, 2013; Impett et al., 2010). In most of the studies that have associated goal orientation with observed behavioral data, one interaction task was treated as one unit of information, e.g., coders coded overall observed commitment or responsiveness in both partners during the interaction (Gordon, Impett, Kogan, Oveis, & Keltner, 2012; Impett et al., 2010). This method of coding does not allow sequential analysis or analysis of change over the course of the interaction. Our study extends existing literature by examining the influence of avoidance goals on own negative communication behavior observed in 39 sequences, taking into account the occurrence of negative partner communication in each sequence. These analyses allowed us to examine processes between spouses during a conflict interaction in a higher resolution than this has been done in earlier studies.

Despite these methodological advances, several factors limit interpretation of our findings. First, the laboratory setting of the interaction task is limited regarding its comparison to a real life experience for couples. With the task, we forced couples to discuss an issue of relationship-related tension for 8 min. When such an issue arises in every day communication, a couple usually would have the possibility to either avoid such a discussion completely (Peterson, 1983) or spend more time to resolve the issue completely. It might be that avoidance-oriented spouses would not enter such a discussion and, therefore, would not experience the observed negative communication pattern. Our results suggest that if couples are forced to discuss a relationship-relevant problem, high avoidance-oriented spouses overreact and as a consequences display more negative communication behaviors. Furthermore, study procedures limited each interaction to 8 min length. Our analyses imply that avoidance-oriented spouses, when confronted with negative partner communication, enter a negative loop of communication that would persist beyond this 8 min interval. However, also these couples will eventually have to exit the conflict – our data fails to address *how* or *when* they exit. It might be that avoidance-oriented spouses need more time,

but might use the same strategies to resolve the conflict as other couples. But it might also be that avoidance-oriented spouses eventually enforce termination of the conflict without any resolution or repair attempts. Future research should focus on exit strategies of avoidance-oriented spouses, as cognitions and affective states at the end of the interpersonal interaction might predict the quality of future interactions and long-term relationship satisfaction.

Despite the diversity of our sample, couples reported relatively high levels of relationship satisfaction, and some couples had difficulty identifying an issue of tension. This affected the baseline of negative communication behavior displayed. With a 10% probability of negative communication to be displayed in a sequence, couples seem to produce a variance that is probably more restricted than it is in the population. On the other hand, restricted variance could also lead to a more conservative testing, i.e., it is more difficult to obtain significant results. This might also bolster our findings.

Because this sample does not fully represent the population, it might also be questionable whether we would find the same patterns in more dissatisfied couples. One possibility would be that in unhappy couples, levels of negative communication are so high that avoidance orientation is no longer influential. In that case, avoidance orientation would be a risk factor only for happy couples. However, the possibility remains that negative communication displayed by high avoidance-oriented spouses in dissatisfying relationships escalates to an even higher degree compared to low avoidance-oriented spouses. This means that levels of satisfaction would additionally influence the negativity pattern in couples.

Another limitation of the present study is that analyses of different kinds of negative communication behaviors were not possible. As described earlier, different forms of negative communication like stonewalling, defensiveness and contempt were coded. Some of these behaviors rarely occurred during the conflict interaction (e.g., stonewalling was displayed by 8

women and 15 men; contempt by 9 women and 17 men; domineering by 23 women and 29 men). Therefore, a more differentiated analysis of negative communication was not possible. Examination of different forms of negative communication or of other established communication patterns in couples like the *demand-withdraw pattern* (Christensen, 1988) could give additional insights into relationship communication interacting with avoidance orientation. Therefore, it would be interesting to replicate our findings with a more diverse sample that displays more negativity and higher levels of dissatisfaction. Another limitation is that sequences of 10 sec are rather long for the identification of micro-level communication patterns or reciprocity patterns. Within 10 sec a lot of things can be said, both negative and positive. To analyse reciprocity or time-lags between partners, coding with an even higher resolution would be needed (e.g., content coding; Hahlweg, Revenstorf, & Schindler, 1984).

Theoretical implications. Our results demonstrated that avoidance-oriented individuals show a behavior that does not correspond to their goal. Even though the initial goal was to avoid conflicts or situations that could harm their relationship, within the conflict they displayed ongoing negativity towards their partner. This *goal-behavior incongruence* can be explained via behavioral, affective, or cognitive processes. First, a behavioral explanation of our findings might be reciprocity of negative behavior of the partner. As mentioned before, avoidance-orientation leads to heightened perceptual sensitivity and accessibility of negative information (Derryberry & Reed, 1994). Due to this focus, highly avoidance-oriented spouses compared to low avoidance-oriented spouses might be more likely to recognize negativity from their partner. Accordingly, they reciprocate negative behavior and are more likely to escalate their partner's behavior over time. Low avoidance-oriented spouses, on the other hand, pay less attention to or miss negativity from their partner, are less likely to reciprocate, and negative communication decreases over time.

Second, highly avoidance-oriented spouses react with more negative affect to negative social events compared to low avoidance-oriented spouses (Gable, 2006). This negative arousal might impair the ability to effectively resolve a conflict. In other words, the initial goal might be superimposed by strong negative affective states and cognitions. In this case, avoidance-oriented spouses are not able to cope effectively with the demands of the conflict.

Third, there might be a difference between high and low avoidance-oriented spouses in how they interpret a relationship conflict. The more avoidance-oriented individuals are, the more important it is to stay away from situations that could harm the relationship. Therefore, any conflict might be interpreted as equivalent with failure by highly avoidance-oriented spouses. In this case, the behavior displayed is no longer goal-directed because the initial goal of avoiding a conflict was already lost and boundaries to hold negativity back, in order to achieve the goal, are loosened. This might be similar to the processes described as the *what-the-hell effect* related to eating behavior (Polivy & Herman, 1985). While cognitive control allows one to eat in accordance with a caloric goal, it is also very susceptible to disruption. When restrained eaters start to deviate from that goal, they are usually incapable of stopping the slide. There is no need to attempt further restraint for that goal, if a certain limit of calories is already exceeded. Thus, if avoidance-oriented spouses encounter conflict and negative affect, they overuse negative behaviors because the initial goal becomes temporarily inoperative. Future research could, for instance, measure goal accessibility under negative affective states or after negative social events to examine these processes in more detail.

Conclusion

The present study provides first evidence that goal orientation is translated into observable behavior crucial for relationship functioning. Notwithstanding its limitations, the research

reported here demonstrates that avoidance orientation may affect the way spouses communicate with each other and how they resolve conflict. Even though negative communication in couples is a well-known predictor of relationship dissatisfaction and low relationship quality, to our knowledge, the concept of goal orientation has not been applied to these important behavioral aspects of relationship functioning. Conflicts and conflict resolution are accompanied by a certain level of negativity in all couples and when spouses argue they use negative communication behavior such as criticism, interrupting each other, or defensiveness. Relationship research should consider individual levels of avoidance orientation as a possible important risk factor in relationships because it seems that avoidance-oriented spouses are particularly likely to participate in patterns of reciprocated negativity that they are unable to exit once entered – a pattern that is similar to that found in unhappy couples. The present study also extends knowledge regarding the described *reactivity pattern* important in goal orientation literature and advance our understanding of relationship functioning.

General Discussion

The objective of the present thesis was to introduce the concept of approach and avoidance relationship goals as a valuable predictor of interpersonal processes important for relationship quality and stability. In the following section, the main findings will be integrated into the proposed research model, and methodological as well as theoretical contributions to the existing literature are discussed. Subsequent, limitations of the present thesis will be highlighted and linked to future research directions. Finally, practical implications will be presented.

Integration of main findings

One aim of the Sinergia project PASEZ is to examine predictors of relationship functioning. The present thesis contributes to this research by examining aspects of relationship functioning from an approach-avoidance perspective and, more specifically, to introduce approach and avoidance goals as a predictor for the quality of interpersonal behavior. The vulnerability-stress-adaptation-model (Karney & Bradbury, 1995) may serve as a framework for the interpretation of the present findings. According to this model, relationship stability is a function of relationship quality, which in turn is a function of a couple's capacity to adapt to stressful events. This capacity as well as the likelihood of stressful experiences is influenced by the partners' dispositions. Accordingly, goal orientation is one possibility of an individual characteristic that contributes to both, the stressful experiences couples encounter as well as to how effectively couples adapt to these experiences. The presented findings support the assumption that goal orientation of each spouse is associated with the experience of relationship-related stress (Part II) and with interpersonal behaviors such as self-reported and observed interpersonal communication (Part I & III), self- and partner-reported stress communication, and dyadic coping (Part II). An overview of the main findings is presented in Table 7.

Table 7

Overview of main findings

		Approach		Avoidance	
		Actor effect	Partner effect	Actor effect	Partner effect
Method	Actor-Partner Interdependence Model				
Part I					
H1a	Goal orientation is related to ... relationship satisfaction	+	+	-	-
H1b	… self-reported communication quality	+	+	-	-
Part II					
H1	… relationship-related stress	-	-	+	n.s.
H2a	… self-reported stress communication	+	n.s.	-	n.s.
H2b	… partner-reported stress communication	+	+	(+)	-
H3a	… self-reported dyadic coping	+	+	n.s.	-
H3b	… partner-reported dyadic coping	+	+	-	-
Method	Actor-Partner Mediation Model				
Part I					
H2	Communication quality of both partners mediate the association between relationship goals and relationship satisfaction	partial mediation	✓	✓	✓
Method	Sequential Analyses				
Part III					
H1	The likelihood of negative communication behaviors in highly avoidance-oriented spouses does not decrease over time			✓	
H2	The likelihood of negative communication behaviors in highly avoidance-oriented spouses does increase over time when negative partner communication is displayed			✓	

Note. +/ (+) indicate a positive and significant/ marginally significant association, - indicates a negative and significant association, n.s. indicates a non significant association, ✓ indicates that the hypothesis found support in the data.

These findings strongly support the utility of a broad, integrative model that includes the examination of motivational processes in the realm of relationship research. Furthermore, the present thesis contributes directly to the existing goal orientation literature. These contributions will be lined out in more detail in the following section.

Contribution to goal orientation literature

The findings reported in this thesis extend research on goal orientation in close relationships methodologically and theoretically in three important ways, that is, the dyadic perspective of the research, the methodological shift from self-reports to partner-reports and observational data, and the examination of the reactivity process hypothesis with behavioral data.

Dyadic perspective. The concept of interdependence between persons is not new. Lewin, for example, stated: "A group can be characterized as a 'dynamic whole'; this means that a change in the state of any subpart changes the state of any other subpart" (1948, p.84, as cited in Kelley, 1991). Goal orientation literature, however, has mostly focused on the processes within individuals and did not include influences of important others (e.g., Cavallo, Fitzsimons, & Holmes, 2010; Diener & Seligman, 2002; Downey et al., 2000; Elliot et al., 2006; Nikitin & Freund, 2010). One major strength of the present research is the focus on the couple and on processes between *non-independent* partners. To account for the dyadic structure and for the interdependence between partners' variables within our data, different methodological approaches have been used. Part I and II analysed data with Structural Equation Modelling (e.g., APIM; Kenny et al., 2006, see data analyses plans in Part I and II for more detailed information), and Part III analysed observational data with Multilevel Modelling (Laurenceau & Bolger, 2005; Raudenbush, Brennan, & Barnett, 1995a, see description of data structure in Part III for more detailed information).

Self-reports, partner-reports, and observational data. Even though studies of goal orientation in the social domain have mostly focused on self-reports, findings of these studies were referred and interpreted as relevant to behavior (e.g., Elliot et al., 2011; Impett et al., 2010). Another major strength of the present thesis is that it extends existing research by including partner-reports (Part II) and by examining observational data (Part III) to find support for the assumption that goal orientation is reflected in interpersonal behavior.

Goal orientation has been shown to bias information processing and memory: Approach-oriented individuals focus more strongly on positive experiences, weigh positive emotions more heavily, and recall positive information better. Avoidance-oriented individuals focus more strongly on negative events, weigh emotions concerning feelings of insecurity more heavily, and recall negative information better (Gable & Poore, 2008; Strachman & Gable, 2006b; Updegraff et al., 2004). Because goal orientation influences how the environment is experienced and interpreted, the assumption might be valid that these cognitive and affective processes (instead of differences in behavior) are the source of the effects related to self-reported or observed interpersonal behaviors. In the present thesis, it was hypothesized that cognitions and emotions about the partner or the relationship would be reflected in such behaviors and, therefore, would be noticeable to the partner or to outside observers. In that case, effects reported in Part I and II are not (or at least not exclusively) based on cognitive-affective biases in spouses. As described in Part II, approach-oriented spouses reported to communicate stress more often and reported to provide more support. Both self-reports are consistent with the evaluations from the partners, i.e., that the partners as well reported that their approach-oriented spouses are communicating stress more often and are providing more support. Avoidance-oriented spouses are less disclosing toward their partners which also is consistent with the evaluation from their partners. Only self-reported dyadic coping of avoidance-oriented spouses was inconsistent with the evaluation of

their partners: While avoidance orientation seems to be unrelated to self-reported dyadic coping, partners still perceive avoidance-oriented spouses as less supportive. In sum, what we have learned from Part II is that there is a sizeable overlap between self- and partner-reports, and this makes it rather unlikely that the effects depend solely on a cognitive-affective bias. More probably, these findings indicate that goal orientation is translated into behavior perceptible to the partner.

Part III further expanded these findings by additionally including observed behavioral data. This data allowed the administration of more advanced methodological approaches such as the analysis of time sequences (Laurenceau & Bolger, 2005). Sequential analyses not only gave insight into associations between avoidance orientation and negative communication behaviors within and between spouses, but also made it feasible to explore behavioral trends over time related to avoidance orientation. As far as I know, no other study to date has applied sequential analyses to examine goal orientation in dating couples. In sum, the findings from Part II – that goal orientation is translated into behavior perceptible to the partner – found additional support in the analyses of the observational data used in Part III where we demonstrated that avoidance orientation is related to own negative communication behaviors displayed in videotaped interaction.

The reactivity process hypothesis. As a major theoretical extension to existing goal literature, an interesting phenomenon with respect to avoidance orientation has been examined: As we have demonstrated in the first two parts, avoidance orientation strongly impairs relationship functioning. One explanation for the impairing effects of avoidance orientation might be the reactivity process hypothesis (Gable, 2006). According to this hypothesis, avoidance motivation is mediated by a differential reactivity process, such that people with stronger avoidance motivation react more strongly to the occurrence of negative events.

Approach motivation, on the other hand, is mediated by a differential exposure process such that people with stronger approach motivation experience more positive events but do not react more strongly when positive events occur than do those with weaker approach motivation. The reactivity hypothesis found support in studies examining cognitive and affective processes (Gable & Impett, 2012). The present research extended these findings by hypothesizing that due to the reactivity process inherent in avoidance orientation, effective adaptation to relationship demands will be compromised in highly avoidance-oriented spouses when confronted with a negative social event such as a conflict interaction task or negative communication behavior of the partner. Results documented in Part III demonstrated that negativity did arise in highly avoidance-oriented spouses in the incident of negative partner communication impairing communication quality over time.

These results have three theoretical implications: First, even though the conflict interaction task itself provides aspects that could be interpreted as threatening to avoidance-oriented spouses, they only amplified negative communication behaviors if negative partner communication occurred. Only under these circumstances a loop of negative communication developed over the course of the interaction. Second, one might also expect this pattern to occur due to negative expectations in avoidance-oriented spouses, i.e., that spouses in long-term relationships know each other well enough to anticipate communication styles displayed by partners. In other words, if the partner often communicates negatively, it might be that avoidance-oriented spouses react more strongly because they expect their partners to communicate negatively. In our analyses, we controlled for partners general level of negative communication. Remaining variance is therefore exclusively explained by the interaction between avoidance orientation of one spouse and the negative communication behavior of the partner within a specific sequence. This finding might be understood in terms of negative

reciprocity (Butler, 2011; Greene & Anderson, 1999), in the sense that only in sequences in which partners communicated negatively, the likelihood of avoidance-oriented spouses to communicate negatively as well was enhanced. Third, our results support the utility of couple intervention programs that address maladaptive or negative communication between partners. Avoidance orientation seems to be a predisposition that might impair communication quality, but only if partners display negative communication. If communication skills of partners are trained and problem-solving skills are improved, also avoidance-oriented spouses are less likely to communicate negatively.

In summary, our findings support the reactivity hypothesis by demonstrating that under the above described circumstances negative communication not only is enhanced, but seems to escalate over the course of the interaction ending in a doom loop of negative communication. On the other hand, improved communication skills in both partners might prevent avoidance-oriented spouses to escalate their negativity. Since no study, to date, has examined this reactivity hypothesis on a behavioral level, this thesis contributes theoretically to existing literature.

Limitations and implications for future research

Notwithstanding the strengths of the present work and its contribution to existing literature, the following section will address some limitations that might lead to future research.

Temperaments and goals. Temperaments and goals are construed as having different functions in the motivational process—temperaments are energizers or instigators, whereas goals are more specific, and give focus and direction (Elliot, 2006). In other words, goals are viewed as important in the self-regulation process because they implement behavioral propensities evoked by approach and avoidance temperaments. Accordingly, a person with an approach temperament is generally likely to adopt approach goals, whereas a person with an avoidance temperament is

likely to adopt avoidance goals (Elliot & Thrash, 2002). Goals, however, also comprise a flexible and strategic element that may take on a variety of different foci. These foci may or may not be directly concordant with the evoked temperament. Research demonstrated that a match between personality disposition and goals leads to better outcomes such as increased motivational strength, self-regulatory performance, increased emotional well-being, and higher relationship satisfaction (Brunstein, Schultheiss, & Grassmann, 1998; Forster, Higgins, & Idson, 1998; Hagemeyer, Neberich, Asendorpf, & Neyer, 2013; Hong & Lee, 2008). Thus, individuals with an approach temperament should be the most successful or satisfied when they strive for approach goals within their relationship. Avoidance-oriented individuals might be the most satisfied (i.e., secure and calm) when they strive for avoidance goals.

Our findings demonstrated that the pursuit of approach goals enhances relationship satisfaction and quality, and avoidance relationship goals impairs relationship satisfaction and quality. The question is if approach-avoidance temperaments would moderate these findings. Literature above suggests that negative side effects of avoidance goals should be less harmful in avoidance-oriented spouses with an avoidance temperament because this goal type matches the personality. If, however, an individual with an approach temperament has a partner that communicates negatively by using a lot of criticism, defensiveness or gets angry when an issue of conflict is brought up, over time he or she might adopt avoidance relationship goals toward his or her partner in order to stabilize the relationship. Goals such as “I will try to avoid conflict and disagreement” or “I will try to avoid that something bad happens to our relationship” might be a strategy for relationship-maintenance, even for spouses with approach temperaments. Nevertheless, because the striving for avoidance goals is not concordant with these individuals temperament, they might suffer more (e.g., higher levels of relationship dissatisfaction, less subjective well-being) from the pursuit of avoidance goals compared to avoidance-oriented

spouses with an avoidance temperament. We would still expect high approach-oriented individuals striving for approach goals to show higher relationship satisfaction and well-being than avoidance-oriented individuals striving for avoidance goals, but a match between temperament and goals should be more beneficial to spouses than a mismatch. In our study, we did not measure temperaments as an additional predictor or moderator for the presented effects. Future research should examine temperaments as well to obtain more insight in motivational processes within spouses.

How important is similarity? Another related research question that should further be examined might be the match between partners regarding goal setting. Again, we would expect that a couple with two approach-oriented spouses would be happiest and research already pointed in that direction. Impett et al. (2010) showed that relationship satisfaction decreases over time if one partner is high in avoidance goals. But what if both spouses are highly avoidance-oriented? According to the typology of couples proposed by Gottman (1993, p. 8), *avoider-couples* are described as relatively stable over time. Thus, if both spouses are successfully avoiding conflicts for a long period of time, this might be a stabilizing feature in couples. Another study related to interpersonal regulatory fit, however, demonstrated that even though promotion-oriented individuals profit when receiving goal-relevant advice from promotion-oriented interaction partners, prevention-oriented individuals do not profit from an interaction partner that is as well prevention-oriented (Righetti, Finkenauer, & Rusbult, 2011). Thus, the question is how important is similarity between spouses compared to the assumption that one approach-oriented spouses in a couple might be better than none. In summary, future research should further examine the importance of both the match within spouses (match between own personality and goal orientation) and the match between spouses (with respect to temperament as well as to goal orientation).

Direction of causality. A methodological issue related to the above mentioned processes is the urge of researchers to find direction of causality. As discussed before, goals are defined as flexible and strategic to goal pursuit. Therefore, it is possible that propensities of interpersonal behaviors within a couple (e.g., poor communication quality) or other relationship characteristics (e.g., major life events) might as well predict changes in goal orientation. Even though, in Part I to III I argued that goal orientation is the underlying motivation that influences interpersonal behavior, based on the processes with respect to partners' interdependence the other pathway is equally valuable for the understanding of relationship functioning. All the more, research should further explore associations between relationship functioning and goal orientation by integrating goals and temperaments into the model. Furthermore, longitudinal data as well as experiments and/or interventions might give more insight into these processes.

Gender and age effects. The aim of this thesis was to study the relation between goal orientation and relationship functioning within and between spouses. Some aspects that might be relevant in this context as well have not been examined more specifically in the scope of this research questions. Gender differences within these processes, for instance, have not been interpreted. All models were controlled for possible gender effects, and even though evidence for relevant differences were not found, unconstrained models varied between women and men. This might raise the question whether processes between women and men are the same. Literature regarding gender differences within the field of motivation in general is scarce. A review on gender differences in the achievement context (Meece, Glienke, & Burg, 2006) came to the conclusion that when gender differences were found, they tended to be small and not a strong predictor of behavioral responses, and, furthermore, depended on aspects such as methodology that has been used, academic domains (e.g., mathematics vs. language), academic abilities, the type of achievement task, and research settings (laboratory vs. classroom). Another review

regarding implicit motives (Duncan & Peterson, 2010) also found very little evidence for consistent gender differences. Recent research on communal and agentic motives in close relationships found a gender difference, that is, women score higher in communion than men (Hagemeyer & Neyer, 2012). But again, differences are small and the authors came to the conclusion that this difference should be interpreted with caution. In summary, gender differences have not been an important issue within motivation literature to date. Studies on processes related to goal orientation in social relationships did often control for gender differences but rarely found such (Impett et al., 2010; Impett, Peplau, et al., 2005; Strachman & Gable, 2006a). Still, research in the relationship context has focused more strongy on gender differences regarding e.g., experience of stress (Fincham, Beach, Harold, & Osborne, 1997; Neff & Karney, 2007), social support (Neff & Karney, 2005; Verhofstadt, Buysse, & Ickes, 2007), and communication patterns (Ackerman et al., 2011; Heavey et al., 1995; Vogel, Murphy, Werner-Wilson, Cutrona, & Seeman, 2007). Future research might treat gender as a more dominant unit of information and explore differences between women and men more systematically.

Another aspect that has not specifically been examined in this thesis were cohort effects. All models have been controlled for possible age effects by either multi-group analyses (Part I and II) or by controlling for age (Part III). These analyses did not reveal evidence for relevant differences between cohorts. This is interesting because research in the realm of goal orientation over the life span identified a shift from approach orientation in young adults to a stronger avoidance orientation in older adults (Ebner, Freund, & Baltes, 2006). This shift is interpreted as an adaptive mechanism to manage developmental constraints growing across adulthood. As a consequence of their adaptive function, avoidance goals seem not to impair subjective well-being in older adults. However, these findings are related to cognitive and physical resources, and it is

questionable if these findings will be replicated with regard to interpersonal resources and its effects on interpersonal behavior. Even though our analyses did not reveal evidence for age effects, further research might focus attention more strongly on changes over the life span.

Practical implications

This thesis combines research from two different and separate fields. The findings presented here may guide future research by highlighting the opportunities when both fields integrate research from each other. Some theoretical implications regarding goal orientation literature have already been discussed above. Beyond these, this thesis further proposes a stronger focus on underlying motivation when addressing maladaptive interpersonal behaviors.

Interventions or couple therapy often focus on inadequate, inefficient or even harmful communication behavior that lead to relationship distress, a decline in relationship satisfaction or dissolution (Baucom et al., 2012). The goal of communication training is to improve problem-solving skills and intimacy-focused communication, and to reduce dysfunctional interaction patterns (Markman et al., 2008). Our findings suggest that an intervention should not only address the behavior itself but also identify the underlying motivation of the behavior. This assumption finds also support in studies on avoidance motivation in individual psychotherapy (Berking et al., 2003; Elliot & Church, 2002; Grosse Holtforth et al., 2005). A central hypothesis of consistency theory (Grawe, 2004), is that “a reduction in avoidance motivation leads to higher satisfaction with subjective goal progress and thus to a better therapy outcome” (Grosse Holtforth et al., 2005, p. 269). Related studies show that during therapy, the intensity of avoidance motivation decreases, and this decrease is associated with patient-rated positive change in optimism, attainment of therapy goals, and therapy satisfaction as well as global therapist ratings of improvement in psychopathological disorders (Berking et al., 2003; Grosse

Holtforth et al., 2005). Regarding the central importance of interpersonal problems in general, "understanding the structure, the determinants, and the components of interpersonal problems optimizes psychotherapeutic interventions" (Grosse Holtforth et al., 2006, p. 172). Especially, when clients present persisting difficult interpersonal patterns, more information about underlying orientations and attitudes (e.g., thoughts, beliefs, emotions, etc.) is essential (Berthoud, Kramer, de Roten, Despland, & Caspar, 2013; Caspar, 1995). Therefore, future research should further examine effects of avoidance relationship orientation in interpersonal communication and integrate them in couple therapy.

Conclusion

The present thesis emphasized the role of approach and avoidance goals, a motivational variable, on different aspects of core importance for relationship function. By integrating the concept of goal orientation into the research of close relationships, this doctoral thesis has provided some interesting evidence that may lead to a better understanding of how relationships work. The reported findings indicate that goal orientation is translated not only into cognitions and emotions but also into interpersonal behavior of intimate partners. The main hypotheses, that is, that approach orientation promotes high relationship quality and enables relationship stability, whereas avoidance orientation impairs relationship functioning, consistently found support. The studies presented in *Part I*, *II*, and *III* extend existing literature methodologically and theoretically. Based on these findings, I would like to strongly encourage further integration of motivational concepts into relationship research as well as into couple interventions. Moreover, the field of motivation could further profit from the extension of research on dyads, families, and larger social groups, as well as from the inclusion of observational data.

References

Ackerman, J. M., Griskevicius, V., & Li, N. P. (2011). Let's get serious: Communicating commitment in romantic relationships. *Journal of Personality and Social Psychology, 100*(6), 1079-1094. doi: 10.1037/A0022412

Amato, P. R. (2000). The consequences of divorce for adults and children. *Journal of Marriage and the Family, 62*(4), 1269-1287. doi: 10.1111/j.1741-3737.2000.01269.x

Atkinson, J. W. (1957). Motivational determinants of risk-taking behavior. *Psychological Review, 64*(6), 359-372. doi: 10.1037/H0043445

Austin, J., & Vancouver, J. (1996). Goal constructs in psychology: Structure, process, and content. *Psychological Bulletin, 120*(3), 338-375. doi: 10.1037/0033-2909.120.3.338

Bates, D., Maechler, M., Bolker, B., & Walker, S. (2013). *lme4: Linear mixed-effects models using Eigen and S4. R package version 1.0-4*. Retrieved from http://CRAN.R-project.org/package=lme4

Baucom, B. R., Weusthoff, S., Atkins, D. C., & Hahlweg, K. (2012). Greater emotional arousal predicts poorer long-term memory of communication skills in couples. *Behaviour Research and Therapy, 50*(6), 442-447. doi: 10.1016/j.brat.2012.03.010

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human-motivation. *Psychological Bulletin, 117*(3), 497-529. doi: 10.1037/0033-2909.117.3.497

Berking, M., Grosse Holtforth, M., & Jacobi, C. (2003). Changes in clinically relevant goals and therapy outcome: A study with inpatients undergoing cognitive behavioral therapy.

Psychotherapie Psychosomatik Medizinische Psychologie, 53(3-4), 171-177. doi: 10.1055/S-2003-38008

Berkman, E. T., Lieberman, M. D., & Gable, S. L. (2009). BIS, BAS, and response conflict: Testing predictions of the revised reinforcement sensitivity theory. *Personality and Individual Differences, 46*(5-6), 586-591. doi: 10.1016/j.paid.2008.12.015

Berntson, G. G., & Cacioppo, J. T. (2000). Psychobiology and social psychology: Past, present, and future. *Personality and Social Psychology Review, 4*(1), 3-15. doi: 10.1207/S15327957pspr0401_2

Berthoud, L., Kramer, U., de Roten, Y., Despland, J. N., & Caspar, F. (2013). Using plan analysis in psychotherapeutic case formulation of Borderline Personality Disorder. *Clinical Psychology and Psychotherapy, 20*(1), 1-9. doi: 10.1002/Cpp.784

Biswas-Diener, R., & Diener, E. (2001). Making the best of a bad situation: Satisfaction in the slums of Calcutta. *Social Indicators Research, 55*(3), 329-352. doi: 10.1023/A:1010905029386

Bodenmann, G. (1995). A systemic-transactional conceptualization of stress and coping in couples. *Swiss Journal of Psychology, 54*(1), 34-49.

Bodenmann, G. (1997). Dyadic coping: A systemic-transactional view of stress and coping among couples: Theory and empirical findings. *European Review of Applied Psychology, 47*(2), 137-141.

Bodenmann, G. (2000). *Stress und Coping bei Paaren [Stress and coping in couples]*. Göttingen: Hogrefe.

Bodenmann, G. (2005). Dyadic coping and its significance for marital functioning. In T. Revenson, K. Kayser & G. Bodenmann (Eds.), *Couples coping with stress: Emerging perspectives on dyadic coping* (pp. 33-50). Washington, DC: APA.

Bodenmann, G. (2008). *Dyadisches Coping Inventar (DCI). [Dyadic Coping Inventory]. Test manual*. Bern, Göttingen: Huber & Hogrefe Testverlag.

Bodenmann, G., & Cina, A. (2005). Stress and coping among stable-satisfied, stable-distressed, and separated/divorced Swiss couples: A 5-year prospective longitudinal study. *Journal of Divorce and Remarriage, 44*(1-2), 71-89. doi: 10.1300/J087v44n01_04

Bodenmann, G., Kaiser, A., Hahlweg, K., & Fehm-Wolfsdorf, G. (1998). Communication patterns during marital conflict: A cross-cultural replication. *Personal Relationships, 5*(3), 343-356. doi: DOI 10.1111/j.1475-6811.1998.tb00176.x

Bodenmann, G., Meuwly, N., Bradbury, T. N., Gmelch, S., & Ledermann, T. (2010). Stress, anger, and verbal aggression in intimate relationships: Moderating effects of individual and dyadic coping. *Journal of Social and Personal Relationships, 27*(3), 408-424. doi: 10.1177/0265407510361616

Bodenmann, G., Schär, M., & Gmelch, S. (2008). *Multi-dimensionaler Stressfragebogen für Paare (MDS-P). Unpublished Questionnaire*. Zurich: University of Zurich.

Bodenmann, G., & Shantinath, S. D. (2004). The Couples Coping Enhancement Training (CCET): A new approach to prevention of marital distress based upon stress and coping. *Family Relations, 53*(5), 477-484. doi: 10.1111/j.0197-6664.2004.00056.x

Bolger, N., & Laurenceau, J. P. (2013). Design and analysis of intensive longitudinal studies of distinguishable dyads. In N. Bolger & J. P. Laurenceau (Eds.), *Intenisve longitudinal methods: An introduction to diary and experience sampling research*. New York: Guilford Press.

Bollen, K. A., & Stine, R. (1990). Direct and indirect effects: Classical and bootstrap estimates of variability. *Sociological Methodology, 20*, 115-140.

Bradbury, T. N., & Karney, B. R. (1993). Longitudinal-study of marital interaction and dysfunction: Review and analysis. *Clinical Psychology Review, 13*(1), 15-27. doi: 10.1016/0272-7358(93)90005-7

Brunstein, J. C., Dangelmayer, G., & Schultheiss, O. C. (1996). Personal goals and social support in close relationships: Effects on relationship mood and marital satisfaction. *Journal of Personality and Social Psychology, 71*(5), 1006-1019. doi: 10.1037//0022-3514.71.5.1006

Brunstein, J. C., Schultheiss, O. C., & Grassmann, R. (1998). Personal goals and emotional well-being: The moderating role of motive dispositions. *Journal of Personality and Social Psychology, 75*(2), 494-508. doi: 10.1037/0022-3514.75.2.494

Butler, E. A. (2011). Temporal interpersonal emotion systems: The "TIES" that form relationships. *Personality and Social Psychology Review, 15*(4), 367-393. doi: 10.1177/1088868311411164

Butler, R. (2007). Teachers' achievement goal orientations and associations with teachers' help seeking: Examination of a novel approach to teacher motivation. *Journal of Educational Psychology, 99*(2), 241-252. doi: 10.1037/0022-0663.99.2.241

Carrere, S., & Gottman, J. M. (1999). Predicting divorce among newlyweds from the first three minutes of a marital conflict discussion. *Family Process, 38*(3), 293-301. doi: 10.1111/j.1545-5300.1999.00293.x

Carver, C. S. (1996). Emergent integration in contemporary personality psychology. *Journal of Research in Personality, 30*(3), 319-334. doi: 10.1006/jrpe.1996.0022

Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control-process view. *Psychological Review, 97*(1), 19-35. doi: 10.1037//0033-295x.97.1.19

Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. New York, NY: Cambridge University Press.

Carver, C. S., Sutton, S. K., & Scheier, M. F. (2000). Action, emotion, and personality: Emerging conceptual integration. *Personality and Social Psychology Bulletin, 26*(6), 741-751. doi: 10.1177/0146167200268008

Caspar, F. (1995). *Plan analysis: Toward optimizing psychotherapy*. Ashland, OH: Hogrefe & Huber.

Cavallo, J. V., Fitzsimons, G. M., & Holmes, J. G. (2010). When self-protection overreaches: Relationship-specific threat activates domain-general avoidance motivation. *Journal of Experimental Social Psychology, 46*(1), 1-8. doi: 10.1016/j.jesp.2009.07.007

Christensen, A. (1988). Dysfunctional interaction patterns in couples. In P. Noller & M. A. Fitzpatrick (Eds.), *Perspectives on marital interaction* (pp. 31-52). Clevedon, Avon, England: Multilingual Matters.

Cohan, C. L., & Bradbury, T. N. (1997). Negative life events, marital interaction, and the longitudinal course of newlywed marriage. *Journal of Personality and Social Psychology, 73*(1), 114-128. doi: 10.1037/0022-3514.73.1.114

Cohen, S. (2005). The Pittsburgh common cold studies: Psychosocial predictors of susceptibility to respiratory infectious illness. *International Journal of Behavioral Medicine, 12*(3), 123-131. doi: DOI 10.1207/s15327558ijbm1203_1

Cohen, S., & Herbert, T. B. (1996). Health psychology: Psychological factors and physical disease from the perspective of human psychoneuroimmunology. *Annual Review of Psychology, 47*, 113-142. doi: 10.1146/annurev.psych.47.1.113

Costa, P. T., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI). Professional manual*. Odessa, FL: Psychological Assessment Resources.

Coyne, J. C. (2010). Marital quality and survivorship: Slowed recovery for breast cancer patients in distressed relationships: Marital distress and the health of breast cancer patients. *Cancer, 116*(4), 1009-1009. doi: 10.1002/Cncr.24804

Coyne, J. C., Rohrbaugh, M. J., Shoham, V., Sonnega, J. S., Nicklas, J. M., & Cranford, J. A. (2001). Prognostic importance of marital quality for survival of congestive heart failure. *American Journal of Cardiology, 88*(5), 526-529. doi: 10.1016/S0002-9149(01)01731-3

Cutrona, C. E. (2004). A psychological perspective: Marriage and the social provisions of relationships. *Journal of Marriage and Family, 66*(4), 992-999. doi: 10.1111/j.0022-2445.2004.00070.x

Davila, J., Bradbury, T. N., Cohan, C. L., & Tochluk, S. (1997). Marital functioning and depressive symptoms: Evidence for a stress generation model. *Journal of Personality and Social Psychology, 73*(4), 849-861. doi: 10.1037/0022-3514.73.4.849

Derlega, V. J., Metts, S., Petronio, S., & Margulis, S. T. (1993). *Self-disclosure*. Newbury Park, CA: Sage.

Derryberry, D., & Reed, M. A. (1994). Temperament and attention: Orienting toward and away from positive and negative signals. *Journal of Personality and Social Psychology, 66*(6), 1128-1139. doi: 10.1037//0022-3514.66.6.1128

Derryberry, D., & Reed, M. A. (2002). Anxiety-related attentional biases and their regulation by attentional control. *Journal of Abnormal Psychology, 111*(2), 225-236. doi: 10.1037//0021-843x.111.2.225

Diener, E., & Seligman, M. E. P. (2002). Very happy people. *Psychological Science, 13*(1), 81-84. doi: 10.1111/1467-9280.00415

Downey, G., Feldman, S., & Ayduk, O. (2000). Rejection sensitivity and male violence in romantic relationships. *Personal Relationships, 7*(1), 45-61. doi: 10.1111/j.1475-6811.2000.tb00003.x

Duncan, L. E., & Peterson, B. E. (2010). Gender and motivation for achievement, affiliation-intimacy, and power. In J. C. Chrisler & D. R. McCreary (Eds.), *Handbook of Gender Research in Psychology*.

Eaker, E. D., Sullivan, L. M., Kelly-Hayes, M., D'Agostino, R. B., & Benjamin, E. J. (2007). Marital status, marital strain, and risk of coronary heart disease or total mortality: The framingham offspring study. *Psychosomatic Medicine, 69*(6), 509-513. doi: 10.1097/PSY.0b013e3180f62357

Ebner, N. C., Freund, A. M., & Baltes, P. B. (2006). Developmental changes in personal goal orientation from young to late adulthood: From striving for gains to maintenance and prevention of losses. *Psychology and Aging, 21*(4), 664-678.

Elliot, A. J. (1999). Approach and avoidance motivation and achievement goals. *Educational Psychologist, 34*(3), 169-189. doi: DOI 10.1207/s15326985ep3403_3

Elliot, A. J. (2006). The hierarchical model of approach-avoidance motivation. *Motivation and Emotion, 30*(2), 111-116. doi: 10.1007/s11031-006-9028-7

Elliot, A. J. (2008). *Handbook of approach and avoidance motivation*. New York, NY: Psychology Press.

Elliot, A. J., & Church, M. A. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology, 72*(1), 218-232.

Elliot, A. J., & Church, M. A. (2002). Client-articulated avoidance goals in the therapy context. *Journal of Counseling Psychology, 49*(2), 243-254. doi: 10.1037//0022-0167.49.2.243

Elliot, A. J., Gable, S. L., & Mapes, R. R. (2006). Approach and avoidance motivation in the social domain. *Personality and Social Psychology Bulletin, 32*(3), 378-391. doi: 10.1177/0146167205282153

Elliot, A. J., & McGregor, H. A. (1999). Test anxiety and the hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology, 76*(4), 628-644. doi: 10.1037//0022-3514.76.4.628

Elliot, A. J., & McGregor, H. A. (2001). A 2 x 2 achievement goal framework. *Journal of Personality and Social Psychology, 80*(3), 501-519. doi: Doi 10.1037//0022-3514.80.3.501

Elliot, A. J., & Sheldon, K. M. (1997). Avoidance achievement motivation: A personal goals analysis. *Journal of Personality and Social Psychology, 73*(1), 171-185. doi: 10.1037//0022-3514.73.1.171

Elliot, A. J., & Sheldon, K. M. (1998). Avoidance personal goals and the personality-illness relationship. *Journal of Personality and Social Psychology, 75*(5), 1282-1299. doi: 10.1037//0022-3514.75.5.1282

Elliot, A. J., & Thrash, T. M. (2002). Approach-avoidance motivation in personality: Approach and avoidance temperaments and goals. *Journal of Personality and Social Psychology, 82*(5), 804-818. doi: 10.1037//0022-3514.82.5.804

Elliot, A. J., & Thrash, T. M. (2010). Approach and avoidance temperament as basic dimensions of personality. *Journal of Personality, 78*(3), 865-906. doi: 10.1111/j.1467-6494.2010.00636.x

Elliot, A. J., Thrash, T. M., & Murayama, K. (2011). A longitudinal analysis of self-regulation and well-being: Avoidance personal goals, avoidance coping, stress generation, and subjective well-being. *Journal of Personality, 79*(3), 643-674. doi: 10.1111/j.1467-6494.2011.00694.x

Elliott, E. S., & Dweck, C. S. (1988). Goals: An approach to motivation and achievement. *Journal of Personality and Social Psychology, 54*(1), 5-12. doi: 10.1037/0022-3514.54.1.5

Eysenck, H. J. (1981). *A model for personality*. New York: Springer Verlag.

Eysenck, H. J., & Eysenck, M. W. (1985). *Personality and individual differences: A natural science approach*. New York: Plenum.

Fincham, F. D., & Beach, S. R. H. (1999). Conflict in marriage: Implications for working with couples. *Annual Review of Psychology, 50*, 47-77. doi: 10.1146/annurev.psych.50.1.47

Fincham, F. D., & Beach, S. R. H. (2010). Marriage in the New Millennium: A Decade in Review. *Journal of Marriage and Family, 72*(3), 630-649. doi: DOI 10.1111/j.1741-3737.2010.00722.x

Fincham, F. D., Beach, S. R. H., Harold, G. T., & Osborne, L. N. (1997). Marital satisfaction and depression: Different causal relationships for men and women? *Psychological Science, 8*(5), 351-357. doi: 10.1111/j.1467-9280.1997.tb00424.x

Finkel, E. J., Rusbult, C. E., Kumashiro, M., & Hannon, P. A. (2002). Dealing with betrayal in close relationships: Does commitment promote forgiveness? *Journal of Personality and Social Psychology, 82*(6), 956-974. doi: 10.1037//0022-3514.82.6.956

Fisher, J. S., Goff, B. A., Nadler, A., & Chinsky, J. M. (1988). Social psychological influences on help seeking and support from peers. In B. H. Gottlieb (Ed.), *Marshaling social support: Formats, processes, and effects*. Newbury Park, CA: Sage.

Forster, J., Higgins, E. T., & Idson, L. C. (1998). Approach and avoidance strength during goal attainment: Regulatory focus and the "goal looms larger" effect. *Journal of Personality and Social Psychology, 75*(5), 1115-1131. doi: 10.1037/0022-3514.75.5.1115

Fox, E., Russo, R., & Dutton, K. (2002). Attentional bias for threat: Evidence for delayed disengagement from emotional faces. *Cognition & Emotion, 16*(3), 355-379. doi: 10.1080/02699930143000527

Frank, E., & Brandstätter, V. (2002). Approach versus avoidance: Different types of commitment in intimate relationships. *Journal of Personality and Social Psychology, 82*(2), 208-221. doi: 10.1037//0022-3514.82.2.208

Freud, S. (1915). Repression. In the standard edition of *Complete Psychological Works of Sigmund Freud* (Vol. XlV). London: Hogarth, 1957.

Gable, S. L. (2006). Approach and avoidance social motives and goals. *Journal of Personality, 74*(1), 175-222. doi: 10.1111/j.1467-6494.2005.00373.x

Gable, S. L., & Berkman, E. T. (2008). Making connections and avoiding loneliness: Approach and avoidance social motives and goals. In A. J. Elliot (Ed.), *Handbook of approach and avoidance motivation* (pp. 203-216). New York, NY: Psychology Press.

Gable, S. L., & Impett, E. A. (2012). Approach and avoidance motives and close relationships. *Social and Personality Psychology Compass, 6*(1), 95-108. doi: 10.1111/j.1751-9004.2011.00405.x

Gable, S. L., & Poore, J. (2008). Which thoughts count? Algorithms for evaluating satisfaction in relationships. *Psychological Science, 19*(10), 1030-1036. doi: 10.1111/j.1467-9280.2008.02195.x

Gable, S. L., Reis, H. T., & Elliot, A. J. (2000). Behavioral activation and inhibition in everyday life. *Journal of Personality and Social Psychology, 78*(6), 1135-1149. doi: 10.1037//0022-3514.78.6.1135

Gable, S. L., Reis, H. T., & Elliot, A. J. (2003). Evidence for bivariate systems: An empirical test of appetition and aversion across domains. *Journal of Research in Personality, 37*(5), 349-372. doi: Doi 10.1016/S0092-6566(02)00580-9

Gollwitzer, P. M., & Bargh, J. A. (1996). *The psychology of action: Linking cognition and motivation to behavior*. New York: Guilford.

Gordon, A. M., Impett, E. A., Kogan, A., Oveis, C., & Keltner, D. (2012). To have and to hold: Gratitude promotes relationship maintenance in intimate bonds. *Journal of Personality and Social Psychology, 103*(2), 257-274. doi: 10.1037/A0028723

Gottman, J. M. (1993). The roles of conflict engagement, escalation, and avoidance in marital interaction: A longitudinal view of 5 types of couples. *Journal of Consulting and Clinical Psychology, 61*(1), 6-15. doi: 10.1037//0022-006X.61.1.6

Gottman, J. M. (1994). *What predicts divorce: The relationships between marital processes and marital outcomes*. Hillsdale NJ: Erlbaum.

Gottman, J. M. (1998). Psychology and the study of marital processes. *Annual Review of Psychology, 49*, 169-197. doi: 10.1146/annurev.psych.49.1.169

Gottman, J. M., Coan, J., Carrere, S., & Swanson, C. (1998). Predicting marital happiness and stability from newlywed interactions. *Journal of Marriage and the Family, 60*(1), 5-22. doi: 10.2307/353438

Graber, E. C., Laurenceau, J. P., & Carver, C. S. (2011). Integrating the dynamics of personality and close relationship processes: Methodological and data analytic implications. *Journal of Personality, 79*(6), 1101-1137. doi: 10.1111/j.1467-6494.2011.00725.x

Grant, H., & Dweck, C. S. (2003). Clarifying achievement goals and their impact. *Journal of Personality and Social Psychology, 85*(3), 541-553. doi: 10.1037/0022-3514.85.3.541

Grawe, K. (2004). *Psychological therapy*. Seattle: Hogrefe & Huber.

Gray, J. A. (1970). Psychophysiological basis of introversion-extraversion. *Behaviour Research and Therapy, 8*(3), 249-&. doi: 10.1016/0005-7967(70)90069-0

Gray, J. A. (1987). *The psychology of fear and stress* (2nd ed.). New York, NY: Cambridge University Press.

Gray, J. A. (1990). Brain systems that mediate both emotion and cognition. *Cognition and Emotion, 4*(3), 269-288. doi: 10.1080/02699939008410799

Greene, S. M., & Anderson, E. R. (1999). Observed negativity in large family systems: Incidents and reactions. *Journal of Family Psychology, 13*(3), 372-392. doi: 10.1037//0893-3200.13.3.372

Grosse Holtforth, M., Bents, H., Maule, B., & Grawe, K. (2006). Interpersonal distress as a mediator between avoidance goals and goal satisfaction in psychotherapy inpatients. *Clinical Psychology and Psychotherapy, 13*(3), 172-182. doi: 10.1002/Cpp.486

Grosse Holtforth, M., Grawe, K., Egger, O., & Berking, M. (2005). Reducing the dreaded: Change of avoidance motivation in psychotherapy. *Psychotherapy Research, 15*(3), 261-271. doi: 10.1080/10503300512331334968

Hagemeyer, B., Neberich, W., Asendorpf, J. B., & Neyer, F. J. (2013). (In)Congruence of implicit and explicit communal motives predicts the quality and stability of couple relationships. *Journal of Personality, 81*(4), 390-402. doi: 10.1111/jopy.12016

Hagemeyer, B., & Neyer, F. J. (2012). Assessing implicit motivational orientations in couple relationships: The Partner-Related Agency and Communion Test (PACT). *Psychological Assessment, 24*(1), 114-128. doi: 10.1037/a0024822

Hahlweg, K., Revenstorf, D., & Schindler, L. (1984). Effects of behavioral marital-therapy on couples communication and problem-solving skills. *Journal of Consulting and Clinical Psychology, 52*(4), 553-566. doi: 10.1037//0022-006x.52.4.553

Hahlweg, K., & Richter, D. (2010). Prevention of marital instability and distress: Results of an 11-year longitudinal follow-up study. *Behaviour Research and Therapy, 48*(5), 377-383. doi: 10.1016/j.brat.2009.12.010

Harris, S. M., Dersch, C. A., & Mittal, M. (1999). Look who's talking: Measuring self-disclosure in MFT. *Contemporary Family Therapy, 21*(3), 405-415. doi: 10.1023/A:1021968517320

Heavey, C. L., Christensen, A., & Malamuth, N. M. (1995). The longitudinal impact of demand and withdrawal during marital conflict. *Journal of Consulting and Clinical Psychology, 63*(5), 797-801. doi: 10.1037/0022-006X.63.5.797

Hendrick, S. S. (1988). A generic measure of relationship satisfaction. *Journal of Marriage and the Family, 50*(1), 93-98. doi: 10.2307/352430

Herzberg, P. Y. (2013). Coping in relationships: The interplay between individual and dyadic coping and their effects on relationship satisfaction. *Anxiety Stress and Coping, 26*(2), 136-153. doi: 10.1080/10615806.2012.655726

Heyman, R. E. (2001). Observation of couple conflicts: Clinical assessment applications, stubborn truths, and shaky foundations. *Psychological Assessment, 13*, 5-35.

Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist, 52*(12), 1280-1300. doi: 10.1037/0003-066X.52.12.1280

Higgins, E. T., & Tykocinski, O. (1992). Self-discrepancies and biographical memory: Personality and cognition at the level of psychological situation. *Personality and Social Psychology Bulletin, 18*(5), 527-535. doi: 10.1177/0146167292185002

Hoffman, L., & Stawski, R. S. (2009). Persons as contexts: Evaluating between-person and within-person effects in longitudinal analysis. *Research in Human Development, 6*(2-3), 97-120. doi: 10.1080/15427600902911189

Holmes, T. H., & Rahe, R. H. (1967). Social readjustment rating scale. *Journal of Psychosomatic Research, 11*(2), 213-&. doi: 10.1016/0022-3999(67)90010-4

Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010). Social relationships and mortality risk: A meta-analytic review. *Plos Medicine, 7*(7). doi: 10.1371/journal.pmed.1000316

Hong, J. W., & Lee, A. Y. (2008). Be fit and be strong: Mastering self-regulation through regulatory fit. *Journal of Consumer Research, 34*(5), 682-695. doi: 10.1086/521902

Impett, E. A., Gable, S. L., & Peplau, L. A. (2005). Giving up and giving in: The costs and benefits of daily sacrifice in intimate relationships. *Journal of Personality and Social Psychology, 89*(3), 327-344.

Impett, E. A., Gere, J., Kogan, A., Gordon, A. M., & Keltner, D. (2013). How sacrifice impacts the giver and the recipient: Insights from approach-avoidance motivational theory. *Journal of Personality, 30*(6), 694-710. doi: 10.1111/jopy.12070

Impett, E. A., Gordon, A. M., Kogan, A., Oveis, C., Gable, S., & Keltner, D. (2010). Moving toward more perfect unions: Daily and long-term consequences of approach and avoidance goals in romantic relationships. *Journal of Personality and Social Psychology, 99*(6), 948-963. doi: 10.1037/a0020271

Impett, E. A., Kogan, A., English, T., John, O., Oveis, C., Gordon, A. M., & Keltner, D. (2012). Suppression Sours Sacrifice: Emotional and Relational Costs of Suppressing Emotions in Romantic Relationships. *Personality and Social Psychology Bulletin, 38*(6), 707-720. doi: Doi 10.1177/0146167212437249

Impett, E. A., Peplau, L. A., & Gable, S. L. (2005). Approach and avoidance sexual motives: Implications for personal and interpersonal well-being. *Personal Relationships, 12*(4), 465-482. doi: 10.1111/j.1475-6811.2005.00126.x

Impett, E. A., Strachman, A., Finkel, E., & Gable, S. (2008). Maintaining sexual desire in intimate relationships: The importance of approach goals. *Journal of Personality and Social Psychology, 94*(5), 808-823. doi: 10.1037/0022-3514.94.5.808

Jacob, T., Tennenbaum, D., Seilhamer, R. A., Bargiel, K., & Sharon, T. (1994). Reactivity effects during naturalistic observations of distressed and nondistressed families. *Journal of Family Psychology, 8*(3), 354-363. doi: 10.1037/0893-3200.8.3.354.

James, W. (1890). *The principles of psychology* (Vol. 2). New York: Henry Holt & Co.

Karney, B. R., & Bradbury, T. N. (1995). The longitudinal course of marital quality and stability: A review of theory, method, and research. *Psychological Bulletin, 118*(1), 3-34. doi: 10.1037/0033-2909.118.1.3

Kelley, H. H. (1991). Lewin, situations, and interdependence. *Journal of Social Issues, 47*(2), 211-233.

Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonl realtions: A theory of interdependence.* New York: Wiley.

Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis.* New York, NY: Guilford Press.

Kogan, A., Impett, E. A., Oveis, C., Hui, B., Gordon, A. M., & Keltner, D. (2010). When giving feels good: The intrinsic benefits of sacrifice in romantic relationships for the communally motivated. *Psychological Science, 21*(12), 1918-1924. doi: 10.1177/0956797610388815

Konorski, J. (1967). *Integrative activity of the brain: An interdisciplinary approach*. Chicago: University of Chicago Press.

Kuster, M., Backes, S., Brandstätter, V., Nussbeck, F. W., Bodenmann, G., & Sutter-Stickel, D. (submitted). Approach-avoidance motivation and the mediating role of communication in intimate relationships.

Lang, P. J. (1995). The emotion probe: Studies of motivation and attention. *American Psychologist, 50*(5), 372-385. doi: 10.1037//0003-066x.50.5.372

Laurenceau, J. P., & Bolger, N. (2005). Using diary methods to study marital and family processes. *Journal of Family Psychology, 19*(1), 86-97. doi: 10.1037/0893-3200.19.1.86

Laurenceau, J. P., Troy, A. B., & Carver, C. S. (2005). Two distinct emotional experiences in romantic relationships: Effects of perceptions regarding approach of intimacy and avoidance of conflict. *Personality and Social Psychology Bulletin, 31*(8), 1123-1133. doi: 10.1177/0146167205274447

Lavner, J. A., & Bradbury, T. N. (2012). Why do even satisfied newlyweds eventually go on to divorce? *Journal of Family Psychology, 26*(1), 1-10. doi: 10.1037/a0025966

Ledermann, T., Bodenmann, G., Rudaz, M., & Bradbury, T. N. (2010). Stress, communication, and marital quality in couples. *Family Relations, 59*(2), 195-206. doi: 10.1111/j.1741-3729.2010.00595.x

Ledermann, T., Macho, S., & Kenny, D. A. (2011). Assessing mediation in dyadic data using the actor-partner interdependence model. *Structural Equation Modeling, 18*(4), 595-612. doi: 10.1080/10705511.2011.607099

Lewin, K. (1935). *A dynamic theory of personality*. New York: McGraw-Hill.

Lewin, K. (1948). The background of conflict in marriage. In G. W. Lewin (Ed.), *Resolving social conflicts: Selected papers on group dynamics* (pp. 84-102). New York: Harper.

Lewis, M. A., & Butterfield, R. M. (2007). Social control in marital relationships: Effect of one's partner on health behaviors. *Journal of Applied Social Psychology, 37*(2), 298-319. doi: 10.1111/j.0021-9029.2007.00161.x

Lewis, M. A., & Rook, K. S. (1999). Social control in personal relationships: Impact on health behaviors and psychological distress. *Health Psychology, 18*(1), 63-71. doi: 10.1037//0278-6133.18.1.63

Macho, S., & Ledermann, T. (2011). Estimating, testing, and comparing specific effects in structural equation models: The phantom model approach. *Psychological Methods, 16*(1), 34-43. doi: 10.1037/A0021763

Markman, H. J., Renick, M. J., Floyd, F. J., Stanley, S. M., & Clements, M. (1993). Preventing marital distress through communication and conflict-management training: A 4-year and 5-year follow-up. *Journal of Consulting and Clinical Psychology, 61*(1), 70-77. doi: 10.1037/0022-006x.61.1.70

Markman, H. J., Stanley, S., Rhoades, G., & Whitton, S. (2008). The long-term effects of the PREP program: A 10 year follow-up. *International Journal of Psychology, 43*(3-4), 411-411.

Markman, H. J., Stanley, S. M., & Blumberg, S. L. (2001). *Fighting for your marriage*. San Francisco: Jossey-Bass.

McClelland, D. C., Atkinson, J. W., Clark, R. A., & Lowell, E. L. (1953). *The achievement motive*. East Norwalk: Appleton-Century-Crofts.

McCrae, R. R., & Costa, P. T. (1987). Validation of the 5-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology, 52*(1), 81-90. doi: 10.1037/0022-3514.52.1.81

Meece, J. L., Glienke, B. B., & Burg, S. (2006). Gender and motivation. *Journal of School Psychology, 44*(5), 351-373. doi: 10.1016/j.jsp.2006.04.004

Mehrabian, A. (1976). Questionnaire measures of affiliative tendency and sensitivity to rejection. *Psychological Reports, 38*(1), 199-209.

Middleton, M. J., & Midgley, C. (1997). Avoiding the demonstration of lack of ability: An underexplored aspect of goal theory. *Journal of Educational Psychology, 89*(4), 710-718. doi: 10.1037/0022-0663.89.4.710

Neff, L. A., & Karney, B. R. (2005). Gender differences in social support: A question of skill or responsiveness? *Journal of Personality and Social Psychology, 88*(1), 79-90. doi: 10.1037/0022-3514.88.1.79

Neff, L. A., & Karney, B. R. (2007). Stress crossover in newlywed marriage: A longitudinal and dyadic perspective. *Journal of Marriage and Family, 69*(3), 594-607. doi: 10.1111/j.1741-3737.2007.00394.x

Nikitin, J., & Freund, A. M. (2010). When wanting and fearing go together: The effect of co-occurring social approach and avoidance motivation on behavior, affect, and cognition. *European Journal of Social Psychology, 40*(5), 783-804. doi: 10.1002/Ejsp.650

Oertig, D., Schüler, J., Schnelle, J., Brandstätter, V., Roskes, M., & Elliot, A. J. (2013). Avoidance goal pursuit depletes self-regulatory resources. *Journal of Personality, 81*(4), 365-375. doi: 10.1111/Jopy.12019

Papp, L. M., & Witt, N. L. (2010). Romantic partners' individual coping strategies and dyadic coping: Implications for relationship functioning. *Journal of Family Psychology, 24*(5), 551-559. doi: 10.1037/A0020836

Polivy, J., & Herman, C. P. (1985). Dieting as a problem in behavioral medicine. In E. Katkin & S. Manuck (Eds.), *Advances in behavioral medicine* (pp. 1-37). New York: SAI.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*(3), 879-891. doi: 10.3758/Brm.40.3.879

R Core Team (2013). *R: A language and environment for statistical computing*. Computer Software. Retrieved from http://www.r-project.org

Randall, A. K., & Bodenmann, G. (2009). The role of stress on close relationships and marital satisfaction. *Clinical Psychology Review, 29*(2), 105-115. doi: 10.1016/j.cpr.2008.10.004

Raudenbush, S. W., Brennan, R. T., & Barnett, R. C. (1995a). A Multivariate Hierarchical Model for Studying Psychological Change within Married-Couples. *Journal of Family Psychology, 9*(2), 161-174.

Raudenbush, S. W., Brennan, R. T., & Barnett, R. C. (1995b). A multivariate hierarchical model for studying psychological change within married couples. *Journal of Family Psychology, 9*(2), 161-174. doi: 10.1037//0893-3200.9.2.161

Reis, H. T., Collins, W. A., & Berscheid, E. (2000). The relationship context of human behavior and development. *Psychological Bulletin, 126*(6), 844-872. doi: 10.1037//0033-2909.126.6.844

Reis, H. T., & Patrick, B. C. (1996). Attachment and intimacy: Component processes. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 523-563). New York: Guilford Press.

Righetti, F., Finkenauer, C., & Rusbult, C. (2011). The benefits of interpersonal regulatory fit for individual goal pursuit. *Journal of Personality and Social Psychology, 101*(4), 720-736. doi: 10.1037/A0023592

Robins, R. W., Caspi, A., & Moffitt, T. E. (2000). Two personalities, one relationship: Both partners' personality traits shape the quality of their relationship. *Journal of Personality and Social Psychology, 79*(2), 251-259.

Sander, J., & Böcker, S. (1993). Die Deutsche Form der Relationship Assessment Scale (RAS): Eine kurze Skala zur Messung der Zufriedenheit in einer Partnerschaft [German version of the Relationship Assessment Scale: A brief scale for the assessment of partnership satisfaction]. *Diagnostica, 39*(1), 55-62.

Schneirla, T. C. (1959). An evolutionary and developmental theory of biphasic processes underlying approach and withdrawal. *Nebraska Symposium on Motivation, 7*, 1-42.

Shipley, T. E., & Veroff, J. (1952). A projective measure of need for affiliation. *Journal of Experimental Psychology, 43*(5), 349-356. doi: 10.1037/H0059738

Sokolowski, K., Schmalt, H. D., Langens, T. A., & Puca, R. M. (2000). Assessing achievement, affiliation, and power motives all at once: The Multi-Motive Grid (MMG). *Journal of Personality Assessment, 74*(1), 126-145. doi: 10.1207/S15327752jpa740109

Sprecher, S., & Hendrick, S. S. (2004). Self-disclosure in intimate relationships: Associations with individual and relationship characteristics over time. *Journal of Social and Clinical Psychology, 23*(6), 857-877. doi: 10.1521/jscp.23.6.857.54803

Story, L. B., & Bradbury, T. N. (2004). Understanding marriage and stress: Essential questions and challenges. *Clinical Psychology Review, 23*(8), 1139-1162. doi: 10.1016/j.cpr.2003.10.002

Strachman, A., & Gable, S. L. (2006a). Approach and avoidance relationship commitment. *Motivation and Emotion, 30*(2), 117-126. doi: 10.1007/s11031-006-9026-9

Strachman, A., & Gable, S. L. (2006b). What you want (and do not want) affects what you see (and do not see): Avoidance social goals and social events. *Personality and Social Psychology Bulletin, 32*(11), 1446-1458. doi: 10.1177/0146167206291007

Tabachnick, B. G., & Fidell, L. S. (2014). Logistic Regression. In B. G. Tabachnick & L. S. Fidell (Eds.), *Using Multivariate Statistics* (6th ed.). Edinburg: Pearson Education Limited.

Tellegen, A. (1985). Structures of mood and personality and their relevance to assessing anxiety, with an emphasis on self-report. In A. Tuma & J. Maser (Eds.), *Anxiety and the anxiety disorders*. Hillsdale, NJ: Erlbaum.

Tooby, J., & Cosmides, L. (1990). The Past Explains the Present - Emotional Adaptations and the Structure of Ancestral Environments. *Ethology and Sociobiology, 11*(4-5), 375-424.

Uchino, B. N., Cacioppo, J. T., & Kiecolt-Glaser, J. K. (1996). The relationship between social support and physiological processes: A review with emphasis on underlying mechanisms and implications for health. *Psychological Bulletin, 119*(3), 488-531. doi: 10.1037/0033-2909.119.3.488

Updegraff, J. A., Gable, S. L., & Taylor, S. E. (2004). What makes experiences satisfying? The interaction of approach-avoidance motivations and emotions in well-being. *Journal of Personality and Social Psychology, 86*(3), 496-504. doi: 10.1037/0022-3514.86.3.496

Utne, M. K., Hatfield, E., Traupmann, J., & Greenberger, D. (1984). Equity, marital satisfaction, and stability. *Journal of Social and Personal Relationships, 1*, 323-332.

Van Lange, P. A. M., Rusbult, C. E., Drigotas, S. M., Arriaga, X. B., Witcher, B. S., & Cox, C. L. (1997). Willingness to sacrifice in close relationships. *Journal of Personality and Social Psychology, 72*(6), 1373-1395.

Verhofstadt, L. L., Buysse, A., & Ickes, W. (2007). Social support in couples: An examination of gender differences using self-report and observational methods. *Sex Roles, 57*(3-4), 267-282. doi: 10.1007/s11199-007-9257-6

Vogel, D. L., Murphy, M. J., Werner-Wilson, R. J., Cutrona, C. E., & Seeman, J. (2007). Sex differences in the use of demand and withdraw behavior in marriage: Examining the social structure hypothesis. *Journal of Counseling Psychology, 54*(2), 165-177. doi: 10.1037/0022-0167.54.2.165

Walster, E., Walster, G. W., & Berscheid, E. (1978). *Equity: Theory and research*. Boston: Allyn & Bacon.

Watson, D., & Clark, L. A. (1993). Behavioral disinhibition versus constraint: A dispositional perspective. In D. Wegner & J. Pennebaker (Eds.), *Handbook of mental control* (pp. 506–527). New York: Prentice Hall.

Wegner, D. M. (1994). Ironic Processes of Mental Control. *Psychological Review, 101*(1), 34-52. doi: 10.1037/0033-295x.101.1.34

Weiss, R. L., & Heyman, R. E. (1997). A clinical-research overview of couple interactions. In W. K. Halford & H. J. Markman (Eds.), *The clinical handbook of marriage and couples interventions* (pp. 13-41). New York: Wiley.

Whisman, M. A. (2001). Marital adjustment and outcome following treatments for depression. *Journal of Consulting and Clinical Psychology, 69*(1), 125-129. doi: 10.1037//0022-006x.69.1.125

Whisman, M. A., Uebelacker, L. A., & Settles, T. D. (2010). Marital distress and the metabolic syndrome: Linking social functioning with physical health. *Journal of Family Psychology, 24*(3), 367-370. doi: 10.1037/A0019547

Wilcox, V. L., Kasl, S. V., & Berkman, L. F. (1994). Social support and physical-disability in older-people after hospitalization: A prospective study. *Health Psychology, 13*(2), 170-179. doi: 10.1037/0278-6133.13.2.170

Wunderer, E., & Schneewind, K. A. (2008). The relationship between marital standards, dyadic coping and marital satisfaction. *European Journal of Social Psychology, 38*(3), 462-476. doi: 10.1002/Ejsp.405

Zajonc, R. B. (1998). Emotion. In D. T. Gilbert, S. T. Fiske & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., pp. 591-632). New York: McGraw-Hill.

C U R R I C U L U M V I T A E

MONIKA KUSTER, MSc

PERSONAL DETAILS

Date of birth:	02. October 1979
Home Town/Nationality :	Eschenbach SG/Swiss
Work address:	Department of Psychology, University of Zurich Binzmühlestrasse 14/6, 8050 Zürich, Switzerland Phone +41 (0) 44 635 75 18 E-Mail m.kuster@psychologie.uzh.ch
Academic adviser	Prof. Dr. Veronika Brandstätter-Morawietz, University of Zurich

POSITION and TEACHING ACTIVITIES

2011/07 – 2014/07	Doctoral Candidate at University of Zurich, Department of Psychology - Psychology of Motivation, Volition and Emotion
2011/07 – 2014/07	Supervision of advanced students qualification work
2012/03 – 2014/07	Supervision, teaching and training activity for the development and implementation of trainings for soft skills/ social competences for the Bsc course „Psychological basic competences“, University of Zurich

EDUCATION, INTERNSHIPS and STUDY VISITS

2011/05	Diploma in Psychology (Licentiate in Psychology; equivalent to MSc) at University of Zurich, Department of Psychology
2007/08 – 2007/12	Research internship, University of Basel, Departement of Psychology (Development & Personality), Basel
2008/09 – 2008/12	Study visit at University of Utrecht, study of Netherlands language, literature and linguistics, Utrecht NL
2009/05 – 2009/11	Research internship, JACOB Centre for Productive Youth Development, Zurich
2008/09 – 2009/06	Development and Implementation of a Training: “Mobbing in Kindergarten and early Primary School – Prevention Program, Workshop for Teachers, Parents and Children”

GRANTS

2011/12	Research Grant funded by the Biäsch-Stiftung
2012/06	Travel Grant funded by the Graduate School of the University Zurich

PARTICIPATION IN COMMITTEES

2013/01 – 2014/07 Representative of the teaching and research associates in the Psychology Department Assembly and the Faculty of Philosophy, University of Zurich

PUBLICATIONS

Master's thesis

Kuster, M. (2010). *Der Einfluss der Basisbedürfnisbefriedigung auf das Essverhalten und die Moderation durch implizite Motive*. [The effect of basic need satisfaction on eating behavior and the moderation of implicit motives] (Unpublished master's thesis). University of Zurich, Zurich.

Peer-reviewed research articles

Schüler, J., & Kuster, M. (2011). Binge eating as a consequence of unfulfilled basic needs: The moderating role of implicit achievement motivation. *Motivation and Emotion, 35*(1),89-97.

Research articles under peer review

Kuster, M., Backes, S., Brandstätter, V., Nussbeck, F., Bodenmann, G., & Sutter-Stickel, D. (submitted). Approach-avoidance motivation and the mediating role of communication quality in intimate relationships.

Kuster, M., Backes, S., Brandstätter, V., Nussbeck, F., Bradbury, G., Sutter-Stickel, D., & Bodenmann, G. (submitted). Approach-avoidance motivation and stress, communication of stress, and dyadic coping in couples.

Kuster, M., Bernecker, K., Backes, S., Brandstätter, V., Nussbeck, F., Bradbury, G., Martin, M., Sutter-Stickel, D., & Bodenmann, G. (JPSP; revise and resubmit). Avoidance orientation and the escalation of negative communication in intimate relationships.

Conference contributions:

Kuster, M., Backes, S. & Brandstätter, V. (2014, July). Approach/avoidance relationship goals, stress, dyadic coping and communication in dating couples. Paper presented at the 17th European Association of Social Psychology (EASP), Amsterdam, Netherlands.

Kuster, M., Backes, S., & Brandstätter, V. (2013, September). Approach-avoidance relationship goals and relationship satisfaction and the mediating role of communication. Paper presented at the 13th Congress of the Swiss Psychological Society (SGP), Basel, Switzerland.

Kuster, M., Backes, S. & Brandstätter, V. (2013, June). How do approach/avoidance relationship goals affect communication and relationship satisfaction in dating couples? Paper presented at the 16th Conference of the Society for Interpersonal Theory and Research (SITAR), Park City, Utah, USA.

Kuster, M., Backes, S. & Brandstätter, V. (2013, May). Implicit motives in romantic relationships: A dyadic perspective. Poster presented at the 6th Conference of the Society for the Study of Motivation (SSM), Washington DC, USA.

Kuster, M., Backes, S. & Brandstätter, V. (2013, May). How do approach/avoidance goals affect relationship satisfaction? Poster presented at the 25th Convention of the Association for Psychological Science (APS), Washington DC, USA.

Kuster, M., Brandstätter, V., & Backes, S. (2012, September). Das Machtmotiv in Beziehungen: Eine dyadische Perspektive [The power motive in romantic relationships: A dyadic perspective]. Paper presented at the 32th Colloquium on Motivational Psychology (MPK), Halle, Germany.

Kuster, M., Brandstätter, V., & Backes, S. (2012, September). Give me what I need: Der Einfluss verschiedener Partnerschaftsziele auf die Beziehungszufriedenheit beider Partner [The influence of different relationship goals on relationship satisfaction]. Poster presented at the 48th Conference of German Psychological Society (DGPS), Bielefeld, Germany.

Kuster, M., Schüler, J., & Brandstätter, V. (2010, May). Der Einfluss der Basisbedürfnisbefriedigung auf das Essverhalten und die Moderation durch implizite Motive [The influence of basic need satisfaction on eating behavior and the moderating role of implicit motives]. Poster presented at the 8th Congress of the MSc and PhD Candidates of the Department of Psychology of the University of Zurich, Zurich, Switzerland.